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ABSTRACT

The report presents results of the first year of a Minneapolis Project, RIM (Reducing Isolation in the Mainstream), whose goals are: to expand and refine knowledge of the variables critical to personal and social growth of sensorially handicapped children in the mainstream, and to use this knowledge to provide appropriate support services for the social and personal development of mainstreamed handicapped children. During the first year RIM undertook five information gathering activities: (1) demographic description of the students, (2) observation of interaction between sensorially impaired students and nonimpaired peers, (3) teacher surveys to assess interaction patterns of a sample of sensorially impaired students, (4) self concept measurements from samples of both impaired and nonimpaired students, and (5) in depth interviews with 162 students. The project developed the Interaction Observation Schedule, the RIM Interview, and the Teacher Questionnaire and additionally utilized the Piers Harris Self Concept Scale for Children. Results to date have produced a description of 315 mainstreamed, sensorially impaired students, and indication of some program need areas. (DB)

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Integration of Vision Impaired Students and Hearing Impaired Students in Regular Classrooms: A Report of Research*

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Reducing
Isolation in the
Mainstream

A Title IV-C Project for Sensorially Impaired Students
Glenda Martin, Project Director; Richard Henze, Project Administrator

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Joint Independent School District No. 287
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INTRODUCTION

Reducing Isolation in the Mainstream is a Title IV-C project conducted by the Vision and Hearing Impaired Programs of Joint Independent School District 287, providing support services to students in the Minneapolis and suburban area. This regional mainstream support program has existed for six years, and evolved from local programs which had a long history of mainstreaming, especially with vision impaired students.

Fundamental to the program are the concepts of support and team. Service is delivered by a team of professionals, whose function is to create support for and with the children and the regular educators serving them. This approach has encouraged questions to surface about the psycho-social implications of mainstreaming and has stimulated pursuit of answers.

One avenue of pursuit is the RIM project. RIM has defined two goals for the project duration.

- To expand and refine our knowledge of the variables critical to personal and social growth of sensorially handicapped children in mainstream settings and our knowledge of how to measure them most meaningfully.
- To use this knowledge in bringing about change so that sensorially handicapped children in regular classes are supported more effectively in their social and personal development.

During the first year, 1977-1978, RIM undertook five major activities to collect information about the sensorially impaired students and their mainstream environment.

- Demographic description of the students.
- Observation of interaction between sensorially impaired students and non-impaired students.
- Teacher surveys to assess interaction patterns of a sample of sensorially impaired students.
- Self concept measurements from samples of sensorially impaired students and non-sensorially impaired students.

- In-depth interviews with 162 students.

Results of these investigative activities are presented in this report. Three instruments were developed by the RIM Project for use in its investigations: the Interaction Observation Schedule, the RIM Interview, and the Teacher Questionnaire. They are described in the following chapters. In addition, the Piers-Harris Self Concept Scale for Children was utilized.

Data resulting from the RIM Project's first year investigations has yielded the following important outcomes:

- A description of a large population of mainstreamed sensorially impaired students (n=315).
- Indication and/or confirmation of program need areas for more effective provision of support to students in their social and personal development.
- Stimulation of questions for further investigation and study.

DEMOGRAPHIC INFORMATION

Purpose

One of the primary objectives of RIM is to collect and summarize demographic information about the sensorially impaired students in the target population. There are over 400 sensorially impaired students (vision impaired or hearing impaired students) served by District 287. Of this number, 315 students attend school in "mainstream" (regular school) settings and are considered members of the target population.

Characteristics selected for study include sex, age, school placement, grade, and level of service. Information gathered on these variables will assist in program planning, and will also be useful in evaluation of population and program changes over the next several years.

Method

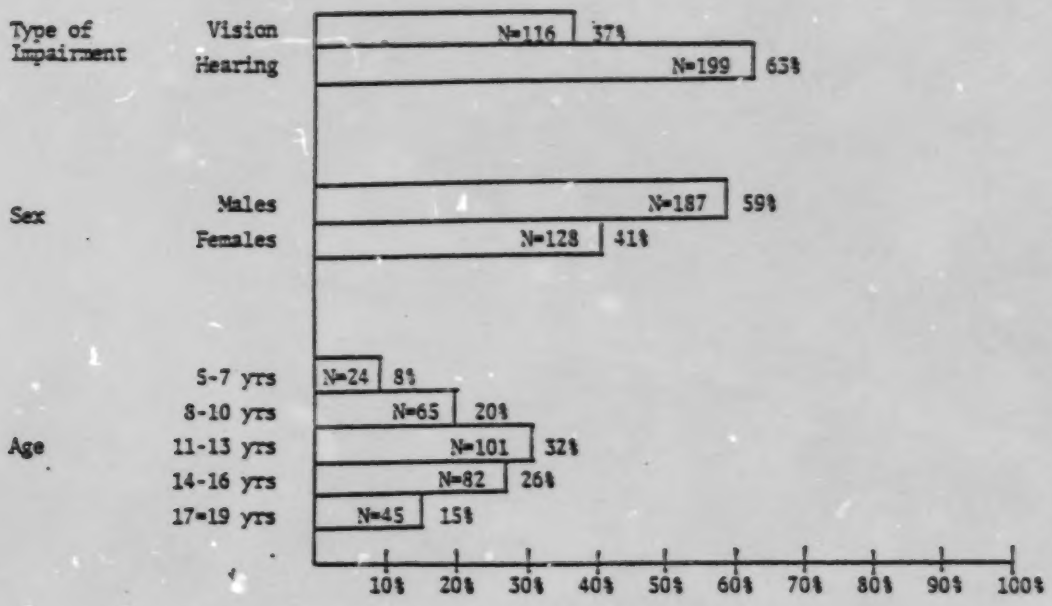
Demographic information was collected from a variety of sources. Descriptive information such as birth date, sex and impairment was available through District Student Information Cards. Service information was gathered from individual teacher caseloads, while school-related functional information was collected from individual vision and hearing teachers. Information about impairments was collected from individual student files and the Office of Demographic Studies, Washington, D. C. Reported totals vary due to differences in availability of information.

Combined Demographic Results

Information summarized in this section represents the combined or total population characteristics of RIM students.

The total number of sensorially impaired students served by District 287 in mainstream settings during 1977-1978 was 315. There were 116 (37%) vision impaired students and 199 (63%) hearing impaired students. Of the total number of students, 59% (187) were males and 41% (128) were females. The students ranged in age from 5 to 19 years, and the average student age was 13 years old. Figure 1 depicts the demographic findings of age, sex, and type of impairment.

Figure 1
Type of Impairment, Sex, and Age Distribution of RIM Population:
District 287, 1977-1978 (315 Students Reported)



In analyzing the data further, the age distribution revealed a large number of hearing impaired students who were born in 1965. The high incidence is attributable to the Rubella epidemic during that year. (Figure 2).

Sensorially impaired students in the RIM population attended 128 schools in 19 separate school districts as shown in Figure 3 . The greatest number of students attended the Minneapolis, Bloomington, and Robbinsdale school districts, which account for 62% of the total population. Forty-two percent (43%) of the total vision impaired population attend the Minneapolis school district and 61% of the total hearing impaired population attend either the Bloomington or Robbinsdale school districts. Hearing stations, which serve as resource centers for hearing impaired students, are located in both the Bloomington and Robbinsdale districts, thus contributing to the larger proportion of students served by these two districts. Figure 4 depicts the distribution of schools attended by type of sensory impairment.

Of the 128 schools attended by sensorially impaired students, 17 schools were attended by both vision impaired and hearing impaired students. There were 67 sensorially impaired students who attended schools in which no other sensorially impaired students were enrolled.

Figure 2
Age Distribution of RIM Population
by Type of Impairment:
District 287, 1977-1978 (315 Students Reported)

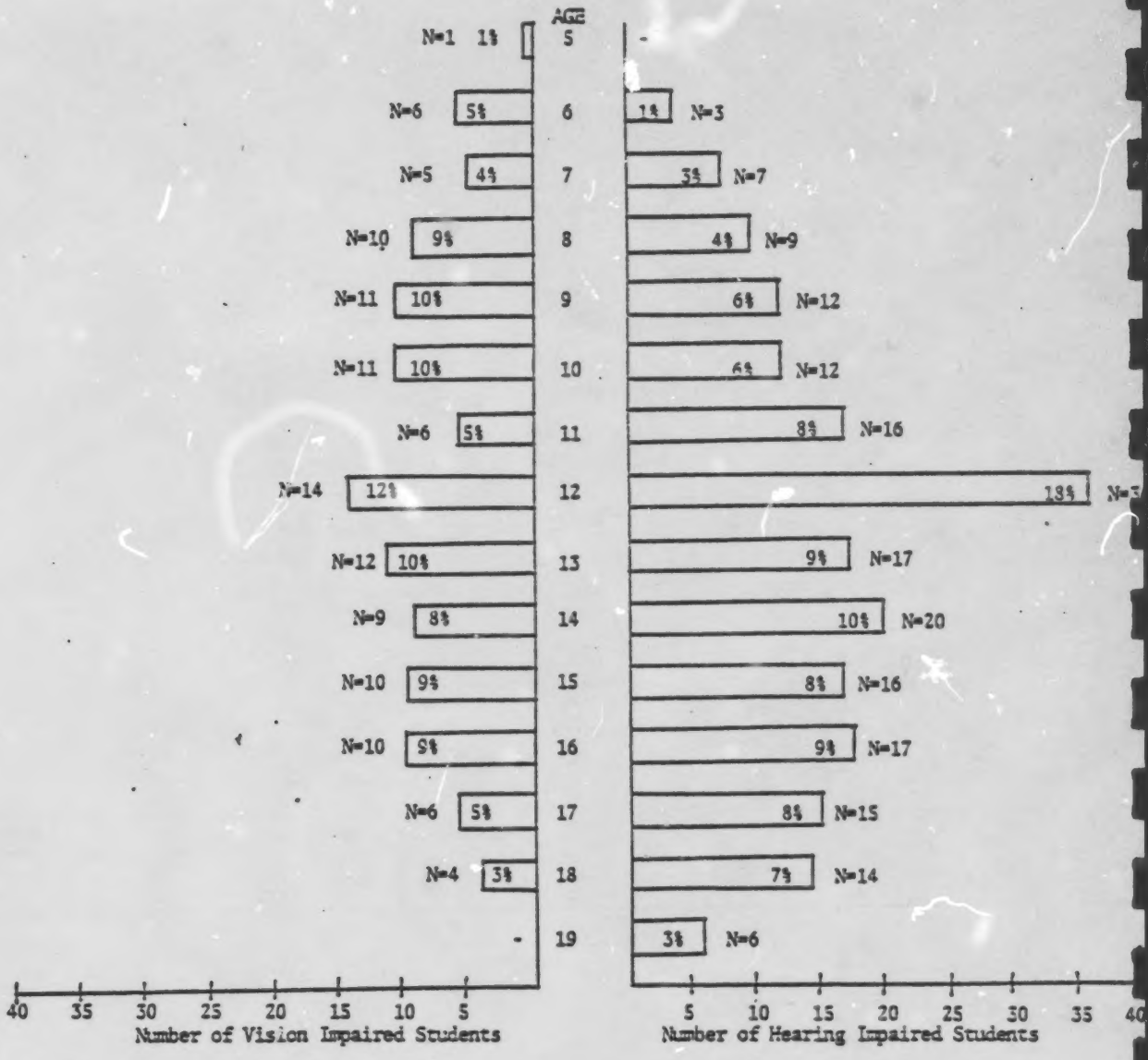


Figure 3
Total Number of Students in RIM
Population by Enrollment in School Districts
District 287, 1977-1978 (315 Students Reported)

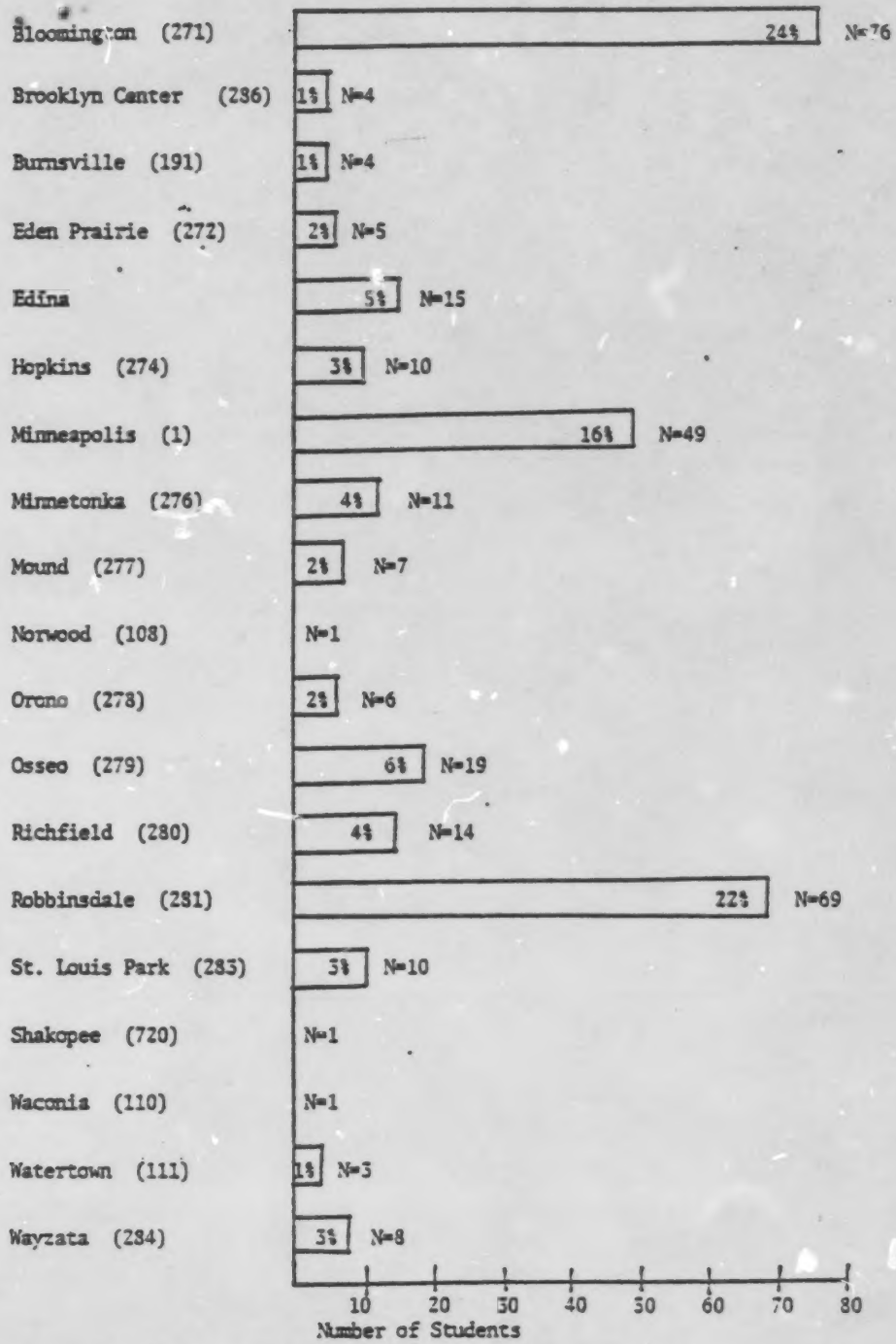
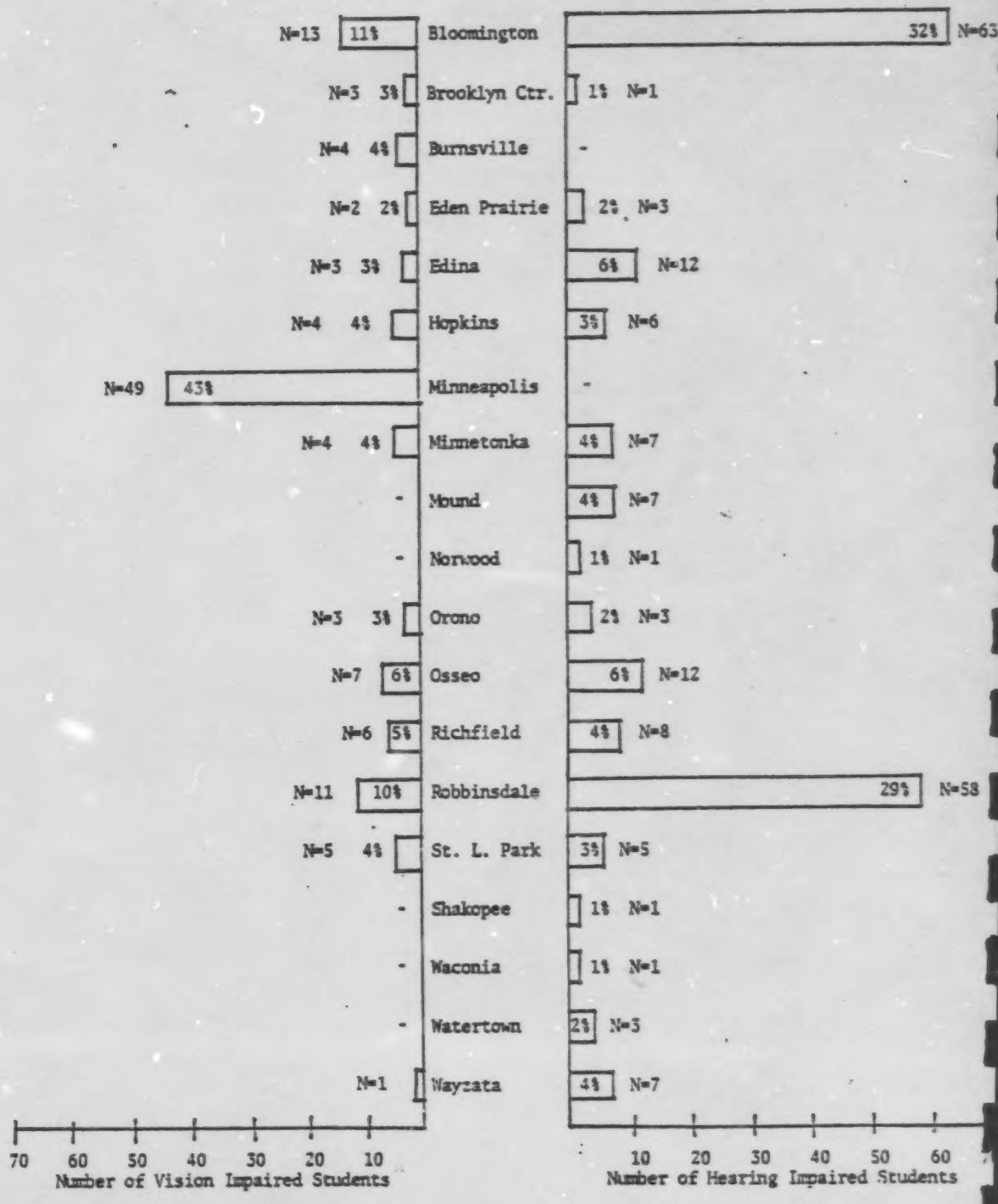

Bloomington (271) 24% N=76
Brooklyn Center (286) 1% N=4
Burnsville (191) 1% N=4
Eden Prairie (272) 2% N=5
Edina 5% N=15
Hopkins (274) 3% N=10
Minneapolis (1) 16% N=49
Minnetonka (276) 4% N=11
Mound (277) 2% N=7
Norwood (108) N=1
Orono (278) 2% N=6
Osseo (279) 6% N=19
Richfield (280) 4% N=14
Robbinsdale (281) 22% N=69
St. Louis Park (283) 3% N=10
Shakopee (720) N=1
Waconia (110) N=1
Watertown (111) 1% N=3
Wayzata (284) 3% N=8
10 20 30 40 50 60 70 80
Number of Students

Figure 4
Distribution of Vision Impaired Students and Hearing Impaired Students in RLM Population by School District Attended:
District 287, 1977-1978 (315 Students Reported)


N=13 11% Bloomington 32% N=63
N=3 3% Brooklyn Ctr. 1% N=1
N=4 4% Burnsville -
N=2 2% Eden Prairie 2% N=3
N=3 3% Edina 6% N=12
N=4 4% Hopkins 3% N=6
N=49 43% Minneapolis -
N=4 4% Minnetonka 4% N=7
- Mound 4% N=7
- Norwood 1% N=1
N=3 3% Orono 2% N=3
N=7 6% Osseo 6% N=12
N=6 5% Richfield 4% N=8
N=11 10% Robbinsdale 29% N=58
N=5 4% St. L. Park 3% N=5
- Shakopee 1% N=1
- Waconia 1% N=1
- Watertown 2% N=3
N=1 Wayzata 4% N=7
70 60 50 40 30 20 10
Number of Vision Impaired Students
10 20 30 40 50 60
Number of Hearing Impaired Students

A total of 185 sensorially impaired students were enrolled in secondary schools compared with 129 students who attended elementary schools. Table 1 gives total RIM population distribution by grade while Figure 5 shows the grade distribution by type of impairment.

Table 1
Total Number of Students in RIM
by Grade of Enrollment

Grade	Elementary Number	%	Grade	Secondary Number	%
K	5	2%	7	42	13%
1	12	4%	8	36	11%
2	14	4%	9	25	7%
3	16	5%	10	27	9%
4	23	7%	11	21	7%
5	24	8%	12	36	11%
6	35	11%			
Total	129	41%		185	58%

Figure 5
Distribution of Vision Impaired Students and Hearing Impaired Students in RDM Population by Grade Enrolled:
District 287, 1977-1978 (315 Students Reported)

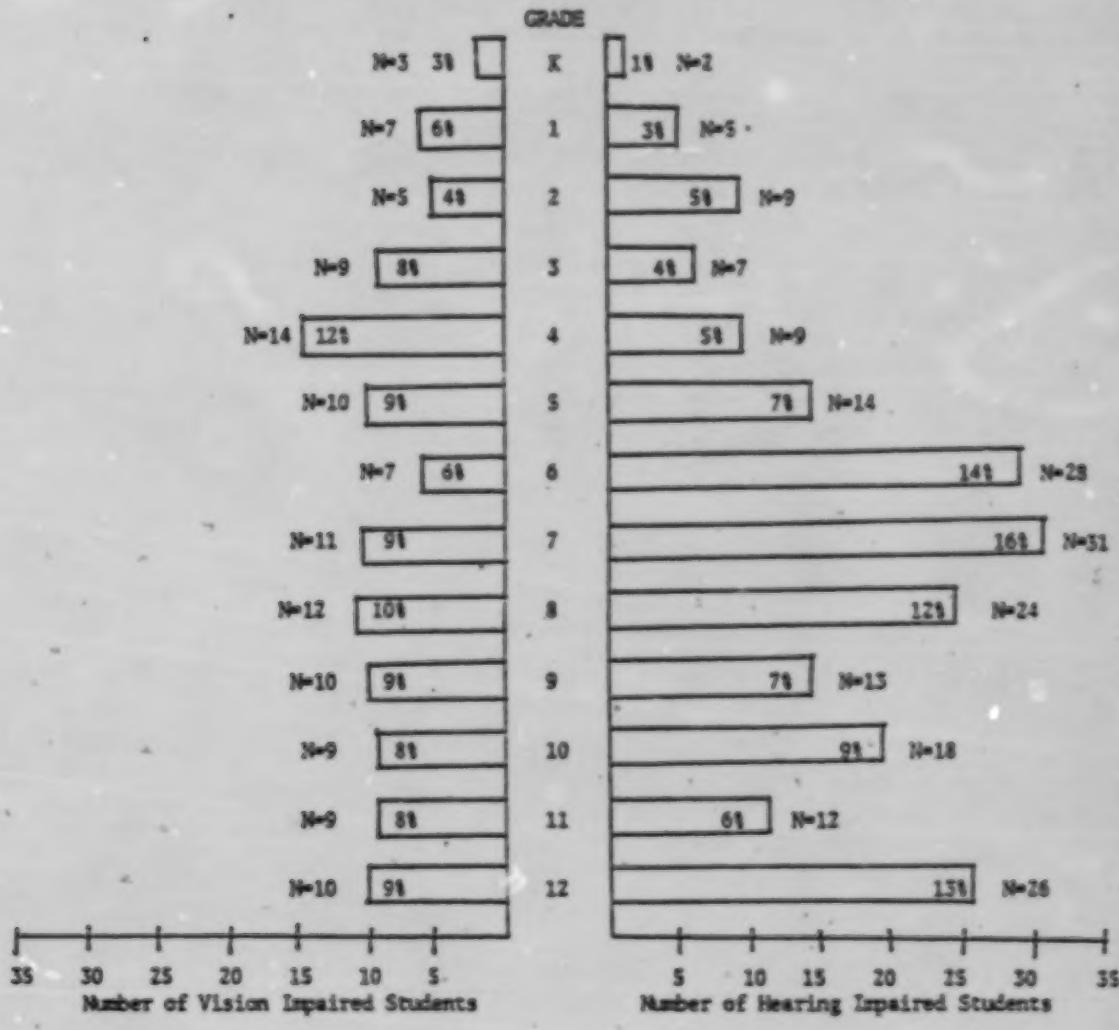
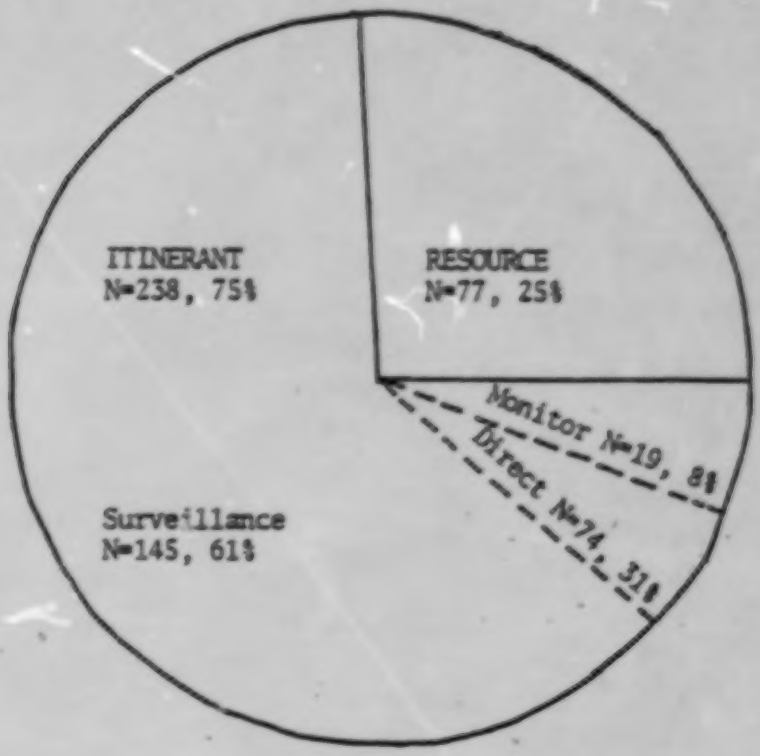


Figure 6
Level of Service Received by
Students in RIM Population:
District 287, 1977-1978 (315 Students Reported)



As described by the Minnesota State Department of Education there are 6 levels in the continuum of services. The students in RIM were served in Levels 1-4 of this continuum. As illustrated in Figure 6 , 75% of the RIM population were served by itinerant services and 25% by resource services. Of those students who received itinerant services, 19 received monitor service (hearing impaired only), 74 received direct service, while 145 received surveillance service.

Additional special education services were received by 42 students in the RIM population. Eight percent of the sensorially impaired students (N=26) received SLBP services and 5% (N=16) received EMR services.

The level of service received by males as compared with females was equally divided. Itinerant services were provided to 75% of the male students and 76% of the female students while resource services were received by 25% of the males and 24% of the females. The complete breakdown of service is provided in Table 2

Table 2
Level of Services Provided
to Male and Female Students
in RIM Population

Service Type	Male Number	Male %	Female Number	Female %
Itinerant	141	75%	98	76%
Monitor (hearing impaired only)	(11)	(6%)	(9)	(7%)
Surveillance	(88)	(47%)	(58)	(45%)
Direct	(42)	(22%)	(31)	(24%)
Resource	46	25%	32	24%
Totals	187	100%	130	100%

Demographic Results for Hearing Impaired Students

The Office of Demographic Studies in Washington, D.C. has defined six categories of hearing loss. Each hearing impaired student in the RIM population was classified into one of the six categories as shown in Table 3.

Table 3
Classification of Hearing Impaired Students by Degree of Loss Categories

Category	Degree of Loss	Number of Students	%
Normal	0-26dB	16	8%
Mild	27-40dB	20	10%
Moderate	41-55dB	34	18%
Moderately Severe	56-70dB	24	13%
Severe	71-90dB	46	24%
Profound	91+	52	27%
Total		199	100%

The degree of a student's hearing loss was found to be related to the level and type of services given to students. Those students with normal or mild hearing loss were always provided with itinerant services while slightly more than half of those students with profound hearing loss were provided with resource services.

However, despite the relationship seen between degree of loss and level of service, it is also noteworthy that students with loss in the moderate, moderately severe, severe, and profound categories were recipients of service at all service levels. A summary of the level of service by degree of loss is presented in Table 4 . Table 5 presents degree of loss by level of service.

Table 4
Level of Service Provided to
Hearing Impaired Students by
Degree of Hearing Loss

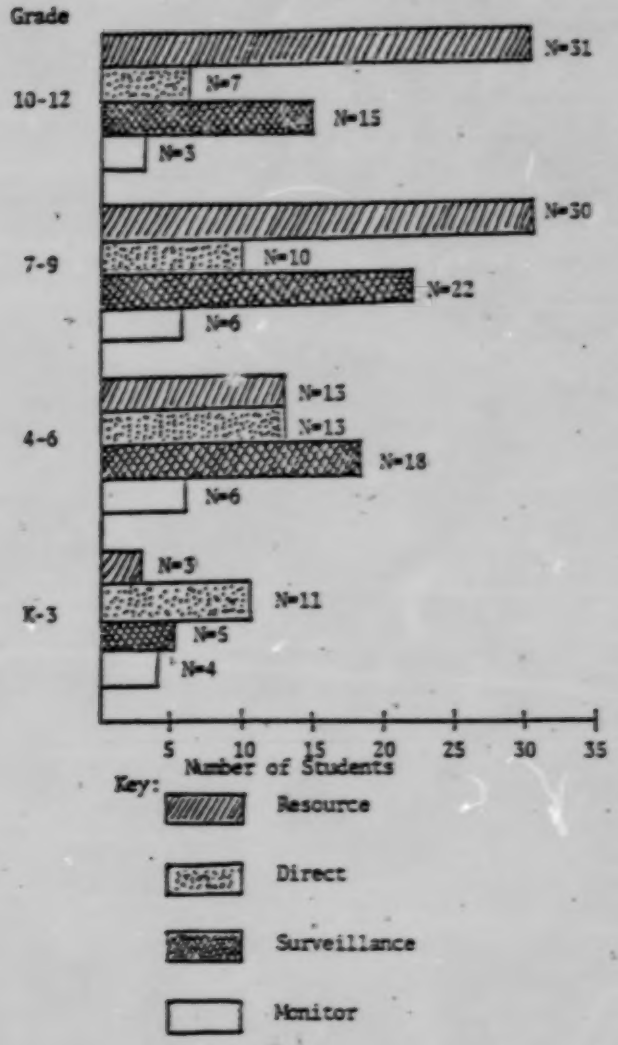
Degree of Hearing Loss	Itinerant: Monitor Number	%	Itinerant: Surveillance Number	%	Itinerant: Direct Number	%	Resource Number	%
Normal (0-26 dB)	1	5%	13	22%	2	5%	-	-
Mild (27-40 dB)	4	21%	15	25%	-	-	-	-
Moderate (41-55 dB)	3	16%	18	30%	9	22%	4	6%
Mod. Severe (56-70 dB)	6	32%	7	12%	5	12%	6	8%
Severe (71-90 dB)	2	11%	4	7%	15	37%	25	35%
Profound (91+)	3	16%	3	5%	10	24%	36	51%
Totals	19	100%	60	100%	41	100%	71	100%

Table 5
Degree of Hearing Loss
of Hearing Impaired Students
by Level of Service Provided

Level of Service	Normal Number	%	Mild Number	%	Moderate Number	%	Mod. Severe Number	%	Severe Number	%	Profound Number	%
Itinerant: Monitor	1	6%	4	21%	3	9%	6	25%	2	4%	3	6%
Itinerant: Surveillance	13	81%	15	79%	18	53%	7	29%	4	9%	3	6%
Itinerant: Direct	2	13%	-	-	9	26%	5	21%	15	33%	10	19%
Resource	-	-	-	-	4	12%	6	25%	25	54%	36	69%
Totals	16	100%	19	100%	34	100%	24	100%	46	100%	52	100%

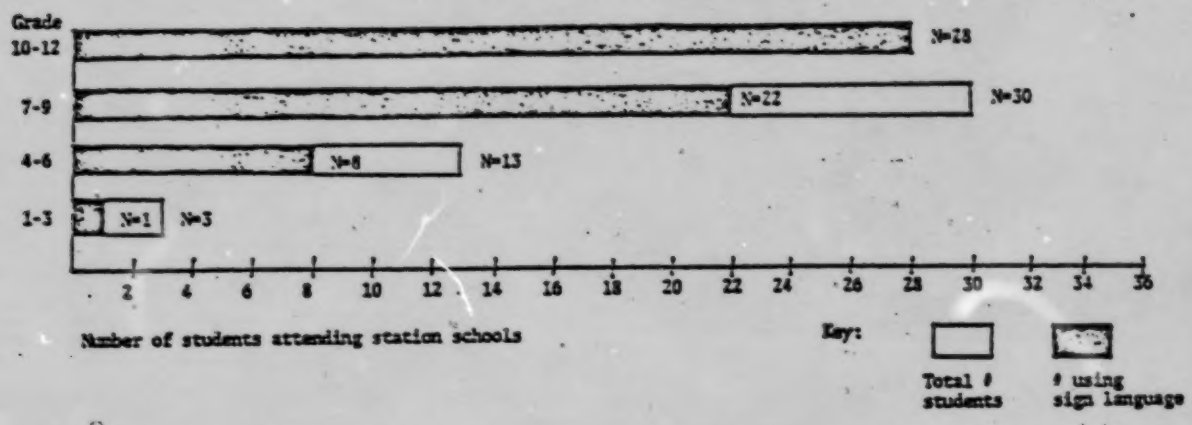
Itinerant services were given more frequently in the early elementary grades, while in the later secondary grades resource services were more prevalent. It should be noted that students enrolled in the self-contained classes for hearing impaired in the Minneapolis Public Schools are not included in the RIM population and that some of these students enter the RIM population at the junior high level when they enroll in District 287 resource programs. Figure 7 illustrates the level of service by grade of the RIM hearing impaired population.

Figure 7
Distribution of Number of
Hearing Impaired Students by Type of Service and Grade:
District 287, 1977-1978 (315 Students Reported)



In 1977-1978 District 287 had resource room programs in six schools, and these schools were designated as station schools. Thirty-seven percent of the RIM hearing impaired population were enrolled in the six station schools. Of these 74 students, 21% were enrolled in elementary schools and 79% were enrolled in secondary schools. Sign language was a functional mode of communication for 59 of the hearing impaired students in station schools, 9 of whom attended elementary schools. The number of hearing impaired students enrolled in station schools and the use of sign language is depicted in Figure 8.

Figure 8
Distribution of Hearing Impaired Students in Station Schools by Grade Placement and Mode of Communication:
District 287, 1977-1978 (74 Students Reported)



Demographic Results for Vision Impaired Students

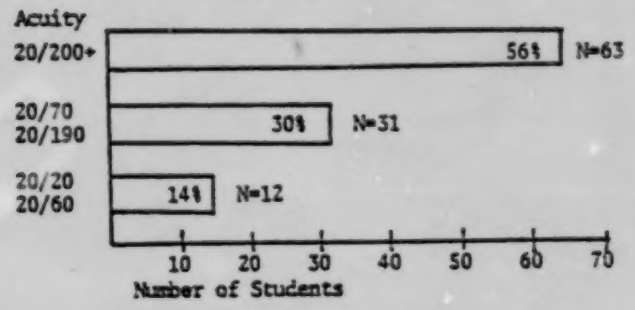
For the purposes of the RIM project, the degree of loss of acuity for vision impaired students is divided into three categories:

1. 20/20 - 20/60
2. 20/70 - 20/190
3. 20/200+

Of the 106 students for whom the RIM project obtained degree of loss information,

over half the population (56%) has a vision loss of 20/200+ as shown in Figure 9 . The next largest group of students contains those students with a 20/70 - 20/190 loss (30%), with the fewest number of students (14%) having a 20/20 - 20/60 loss.

Figure 9
Distribution of Number of
Vision Impaired Students by Category
of Acuity Loss:
District 287, 1977-1978 (106 Students Reported)



All vision impaired students in the RIM population received itinerant service at one or two levels: surveillance or direct. The degree of vision loss was found to be related to the level of service a student received as seen in Table 6 .

Table 6
Distribution of Type of Services
by Degree of Vision Loss for
Vision Impaired Students in Itinerant Services RIM Project

Degree of Loss	Surveillance		Direct	
	Number	%	Number	%
20/20 - 20/60	14	18%	2	7%
20/70 - 20/190	27	34%	4	13%
20/200+	39	49%	24	80%
Total	80	100%	30	100%

Of those vision impaired students who received surveillance service, 47% were in elementary schools and 53% were in secondary schools. Of those students who received direct service, 41% were in elementary schools and 59% were in secondary schools. Table 7 tabulates the grade and level of service breakdown.

Table 7
Distribution of Number of
Vision Impaired Students
by Grade and Level of Service

Grade	Surveillance		Direct	
	Number	%	Number	%
K-3	15	17%	7	22%
4-6	25	30%	6	19%
7-9	27	32%	8	26%
10-12	18	21%	10	33%
Total	85	100%	31	100%

Of the vision impaired population 15% received SLBP services and 9% received EMR services.

It was also reported that 91 students used regular type, 29 used tapes, 11 used large type and 14 used braille. Some students were reported as using more than one type of reading mode

OBSERVATION INFORMATION

Purpose

A second objective of RIM was to determine the nature and extent of interaction that occurred between sensorially impaired students and their classmates, and teachers, and how that interaction compared with that of non-sensorially impaired students. This information was considered an important element in the establishment of baseline information that will be useful in comprehensive District 287 Student Support Services program planning.

Method

Observations were conducted by RIM staff members using the RIM Observation Schedule. The Observation Schedule was a specially designed instrument which allowed systematic observation of classroom interactions of sensorially impaired students and classroom peers. During alternate 15 second intervals, either a sensorially impaired student or a classroom peer was observed. Interactions were categorized by (1) direction of interaction - initiation or response, (2) mode of interaction - verbal or non verbal, (3) quality of interaction - positive or negative. If an interaction occurred between a student and teacher, it was categorized separately as student-teacher interaction. If a student actively avoided a classmate's attempt at interaction, that behavior was recorded. Also included on the Observation Schedule was a category for recording no interaction during a 15 second interval.

Sample

Observations were made on a selected sample of 46 sensorially impaired

students (23 vision impaired students and 23 hearing impaired students) from 39 schools. This group was identified as Sample I. The 23 vision impaired students were chosen by selecting every fifth student from an alphabetical list of vision impaired students served in mainstream settings. The 23 hearing impaired students were chosen by selecting every fifth student from an alphabetical list of hearing impaired students served itinerantly in mainstream settings. Hearing impaired students served in resource settings were not included in Sample I.

Of the 46 students in Sample I, 50% were male (n=23) and 50% were female (n=23). The students ranged in age from six to eighteen years old. Forty-one percent (41%) of the students (n=19) were enrolled in elementary settings (grades 1-6) and 59% of the students (n=17) were enrolled in secondary settings (grades 7-12).

On the basis of level of impairment and type of services received, Sample I students were representative of the students in the RIM population who were served itinerantly (Tables 8 and 9).

Table 8
Comparison of Hearing Impaired Students
in Sample I and in Total RIM Hearing Impaired Population
Based on Degree of Loss and Level of Service

Degree of Loss	Sample I Hearing Impaired Students	Total RIM Hearing Impaired Population	Level of Service	Sample I Hearing Impaired Students	Total RIM Hearing Impaired Population
Normal (0-26 db)	9%	8%	Monitor	17%	16%
Mild (27-40 db)	17%	10%	Surveillance	30%	50%
Moderate (41-55 db)	17%	18%	Direct	52%	34%
Mod. Severe (56-70 db)	22%	13%			
Severe (71-90 db)	26%	24%			
Profound (91+ db)	9%	27%			
Total	100%	100%		100%	100%

Table 9
Comparison of Vision Impaired Students
in Sample I and in Total RIM Vision Impaired Population
Based on Visual Acuity and Level of Service

Visual Acuity	Sample I Vision Impaired Students	Total RIM Vision Impaired Population	Level of Service	Sample I Vision Impaired Students	Total RIM Vision Impaired Population
20/20-20/60	23%	14%	Surveillance	78%	72%
20/70-20/190	36%	30%	Direct	22%	28%
20/200+	41%	56%			
Total	100%	100%		100%	100%

Procedure

A RIM staff member scheduled observation times in cooperation with counselors and teachers. Observation time was requested for a class period during which student interaction was allowed. Students did not meet the observer prior to the observation, and were not told the specific purpose of the observation. Upon entering the classroom, the observer sat in a location where student attention was not focused directly on the observer, but which allowed direct observation of the sensorially impaired student. Two peers were randomly selected for observation. Formal observation began first with the sensorially impaired student during the first 15-second interval. During a 15-second recording period, interaction behavior was recorded in the appropriate categories on the RIM Observation Schedule. Following the recording time, the student designated as Peer 1 was observed for 15 seconds, and this peer's interaction was recorded. The sensorially impaired student was observed again, followed by the observation of the peer designated as Peer 2. This process continued until the sensorially impaired student had been observed for 40 intervals of observation time (10 minutes) and each of the two peers had been observed for 20 intervals of observation time (5 minutes).

A second classroom observation was similarly scheduled and conducted. An attempt was made to select a different classroom time and setting for the second observation.

Analysis

The interactions recorded for each student during Observation 1 and Observation 2 were counted and combined. This number is referred to as "Total Interactions." The interactions recorded for each student within each category of interaction (initiation, response, verbal, non-verbal, positive, negative, student-teacher) were also tabulated. For purposes of analysis, interaction data was grouped into six intervals: 0-9, 10-19, 20-29, 30-39, 40-49, and 50+ interactions.

The results of the observation will be reported using the following comparisons:

I. TOTAL INTERACTION (Total number of times students interacted with peers)

Sensorially impaired students versus peers
Vision impaired students versus hearing impaired students
Elementary versus secondary sensorially impaired students
Male versus female sensorially impaired students

II. INITIATION (Number of times students initiated interaction with peers)

Sensorially impaired students versus peers
Vision impaired students versus hearing impaired students
Elementary versus secondary sensorially impaired students
Male versus female sensorially impaired students

III. RESPONSE (Number of times students responded to peers)

Sensorially impaired students versus peers
Vision impaired students versus hearing impaired students
Elementary versus secondary sensorially impaired students
Male versus female sensorially impaired students

IV. VERBAL INTERACTION (Number of times students interacted verbally with peers)

Sensorially impaired students versus peers
Vision impaired students versus hearing impaired students
Elementary versus secondary sensorially impaired students
Male versus female sensorially impaired students

V. NON-VERBAL INTERACTION (Number of times students interacted non-verbally with peers)

Sensorially impaired students versus peers
Vision impaired students versus hearing impaired students
Elementary versus secondary sensorially impaired students
Male versus female sensorially impaired students

VI. NEGATIVE INTERACTION (Number of times students interacted negatively with peers)

Sensorially impaired students versus peers
Vision impaired students versus hearing impaired students
Elementary versus secondary sensorially impaired students
Male versus female sensorially impaired students

VII. POSTIVE INTERACTION (Number of times students interacted positively with peers)

Sensorially impaired students versus peers
Vision impaired students versus hearing impaired students
Elementary versus secondary sensorially impaired students
Male versus female sensorially impaired students

VIII. STUDENT-TEACHER INTERACTION (Number of times students interacted with teachers)

Sensorially impaired students versus peers
Vision impaired students versus hearing impaired students
Elementary versus secondary sensorially impaired students
Male versus female sensorially impaired students

When comparisons were made between sensorially impaired students and their peers, the number of students within each group was 45 (one student from the original sample of 46 was not observed). When breakdowns for impairment, school level, and sex occur, however, the number of students decrease, and a small change in the number of students appears as a large difference in percentage. The number of students within each group were: vision impaired students (n=22), hearing impaired students (n=23), elementary students (n=20), secondary students (n=25), male students (n=22) and female students (n=23). For each category of interaction, a table will show the frequency distribution of the number of interactions for each comparison group. The observation tables include the following information:

Number:	The number of students having interactions in that interval.
Percent:	The percent of the group which has interactions in that interval.
Cumulative percent:.	The sum of the percentages up and including that interval (beginning with the 0-9 interval).

Range of interaction: The range from the minimum to the maximum number of interactions recorded.

Mean: The average number of interactions.

Median: That point at which half of the scores fall below and half above.

Each table is discussed, and similarities and differences between comparison groups are noted. Differences were not tested for statistical significance (i.e. to test hypotheses) but were examined informally in order to generate hypotheses for further inquiry.

A summary of the information gained is reported for each category, and limitations of the category are noted.

Results

I. TOTAL INTERACTION

Sensorially Impaired Students Versus Peers

The total number of interactions for the sensorially impaired students (SIS) ranged from 0-57 interactions, with two sensorially impaired students having no interactions. For the peers (P), the range of total interactions was from 8-49 interactions, or slightly smaller than for the SIS. The mean number of interactions for the SIS was 19, while for the P the average number of interactions was 26. The median is 16 for the SIS and 26 for the P.

TABLE 10

FREQUENCY DISTRIBUTION OF TOTAL CLASSROOM INTERACTIONS FOR SENSORIALLY IMPAIRED STUDENTS AND PEERS

Number of Interactions	Sensorially Impaired			Peers		
	Number	%	Cum. %	Number	%	Cum. %
0-9	16	36	36	6	13	13
10-19	7	16	52	7	16	29
20-29	11	25	77	15	33	62
30-39	5	11	88	10	22	89
40-49	5	11	99	7	16	100
50+						
TOTAL	45	100%		45	100%	
	Range 0 - 57 Mean 19 Median 16			Range 8 - 49 Mean 26 Median 26		

In comparing interactions for SIS and P, the largest difference occurs in the lowest interval (0-9). Over one-third (36%) of the SIS had total interactions between 0 and 9, whereas only 13% of the P had total interactions at this level. At the upper end of the distributions (40-50+), there was no difference between the two groups: few students from either group interacted at this level. This suggests that while there is much similarity between the SIS and P in terms of the overall amount of observed interaction, there were more SIS than P that had total interactions in the 0-9 range. This larger proportion of SIS at the lower intervals of interaction accounted for most of the difference between the two groups.

Vision Impaired Versus Hearing Impaired Students

The range of total interactions for the vision impaired students was 0-48 and for the hearing impaired students 0-57. Both groups had one student with no interactions. The mean and median were lower for the vision impaired students than for the hearing impaired student. The vision impaired students' mean was 17 and median was 14 as compared to a mean of 21 and a median of 20 for the hearing impaired students (Table 11).

TABLE 11

FREQUENCY DISTRIBUTION OF TOTAL CLASSROOM INTERACTIONS FOR VISION IMPAIRED AND HEARING IMPAIRED STUDENTS

Number of Interactions	Vision Impaired			Hearing Impaired		
	Number	%	Cum. %	Number	%	Cum. %
0-9	10	46	46	6	26	26
10-19	2	9	55	5	22	48
20-29	6	28	83	5	22	70
30-39	2	9	92	3	13	83
40-49	2	9	100	3	13	96
50+				1	4	100
TOTAL	22	100%		23	100%	
	Range 0 - 48 Mean 17 Median 14			Range 0 - 57 Mean 21 Median 20		

As reported earlier, 36% of the total interactions of the SIS group occurred in the 0-9 interval. This overall figure disguised the difference between the vision impaired and hearing impaired groups. Almost one-half (46%) of the vision impaired students had total interactions in the 0-9 interval, while one-fourth (26%) of the hearing impaired students had interactions in this interval. Further, the median for the vision impaired students was 14 interactions, whereas the median for the hearing impaired students was 20 interactions. These figures indicate that there were more vision impaired students than hearing impaired students interacting in the lower intervals of interactions. When comparing vision impaired and hearing impaired students in the upper four intervals of interaction (20-50+), there was little difference between the two groups.

Elementary Versus Secondary Sensorially Impaired Students

Total interactions for elementary SIS (vision impaired and hearing impaired students combined) ranged from 1-42, and for secondary SIS from 0-57, with two secondary students observed as having no interactions. The mean and median were similar to the two groups: elementary mean = 20 and secondary mean = 19; elementary median = 20 and secondary median = 16. (Table 12).

TABLE 12

FREQUENCY DISTRIBUTION OF TOTAL CLASSROOM INTERACTIONS FOR ELEMENTARY AND SECONDARY SENSORIALLY IMPAIRED STUDENTS

Number of Interactions	Elementary SIS			Secondary SIS		
	Number	%	Cum. %	Number	%	Cum. %
0-9	5	26	26	11	42	42
10-19	4	21	47	3	12	54
20-29	6	32	79	5	19	73
30-39	2	11	90	3	12	85
40-49	2	11	100	3	12	97
50+				1	4	100
TOTAL	19	100%		26	100%	
	Range 1 - 42 Mean 20 Median 20			Range 0 - 57 Mean 19 Median 16		

There was very little difference between the percentages of elementary and secondary students interacting in each interval; there was only a slight tendency for more secondary students to interact in the lowest interval of interaction.

Male Versus Female Sensorially Impaired Students

The number of interactions for males ranged from 0-57 and for females from 1-49. Two males had no interaction. The average was somewhat higher for males (mean = 21) than for females (mean = 18) (Table 13). The median was about the same, males (median = 17) and females (median = 16). It would appear that the distributions for the two groups were similar in that about half the students fall below 17 and 16. However, there were more males than females interacting in the upper intervals, which increased the mean for the male group.

TABLE 13
FREQUENCY DISTRIBUTION OF TOTAL CLASSROOM INTERACTIONS
FOR MALE AND FEMALE SENSORIALLY IMPAIRED STUDENTS

Number of Interactions	Male SIS			Female SIS		
	Number	%	Cum. %	Number	%	Cum. %
0-9	7	32	32	9	40	40
10-19	4	18	50	3	13	53
20-29	4	18	68	7	31	84
30-39	3	14	82	2	9	93
40-49	3	14	96	2	9	100
50+						
TOTAL	22	100%		23	100%	
	Range 0 - 57 Mean 21 Median 17			Range 1 - 49 Mean 18 Median 16		

Total Interaction Summary

The major finding of this section was that more sensorially impaired students interact at a lower level of interaction than do their peers; this is even more evident of vision impaired students than hearing impaired students.

II. INITIATION

Sensorially Impaired Students Versus Peers

The initiation category showed relatively little spread. The range was 0-19 for sensorially impaired students and from 0-18 for their peers. The mean and median for the SIS was 5 and for the P, 6 (Table 14). Twelve SIS had no initiations while only two P had no initiations.

TABLE 14
FREQUENCY DISTRIBUTION OF CLASSROOM INITIATIONS
FOR SENSORIALLY IMPAIRED STUDENTS AND PEERS

Number of Interactions	Sensorially Impaired			Peers		
	Number	%	Cum. %	Number	%	Cum. %
0-9	35	78	78	38	84	84
10-19	10	22	100	7	16	100
20-29						
30-39						
40-49						
50+						
TOTAL	45	100%		45	100%	
	Range 0 - 19 Mean 5 Median 5			Range 0 - 18 Mean 6 Median 6		

Most students in both groups had 0-9 initiations: 78% of the SIS and 84% of the P. The remaining students had 10-19 initiations. Generally speaking, there was very little difference between the two groups, except in the number of students having no initiations.

Vision Impaired Versus Hearing Impaired Students

The range of initiations was smaller for the vision impaired students than for the hearing impaired students (Table 15). Both groups had students with no initiations, but the highest number of initiations for vision impaired students was 13 and for the hearing impaired students, 19. The means for both groups were equal (mean = 5) and the medians were similar.

TABLE 15

FREQUENCY DISTRIBUTION OF CLASSROOM INITIATIONS FOR VISION IMPAIRED AND HEARING IMPAIRED STUDENTS

Number of Interactions	Vision Impaired			Hearing Impaired		
	Number	%	Cum. %	Number	%	Cum. %
0-9	16	73	73	19	83	83
10-19	6	27	100	4	17	100
20-29						
30-39						
40-49						
50+						
TOTAL	22	100%		23	100%	
	Range 0 - 13 Mean 5 Median 4			Range 0 - 19 Mean 5 Median 5		

What is most interesting in this comparison is the large proportion of vision impaired students who made no initiations: 36% of the vision impaired students had no initiations and 18% of the hearing impaired students had none.

There were relatively more hearing impaired than vision impaired students in the lowest interval of initiation (83% of hearing impaired students and 73% of vision impaired students). However, half of the vision impaired students who were in the 0-9 interval had no initiations.

Elementary Versus Secondary Sensorially Impaired Students

Elementary SIS initiated interactions more than secondary SIS (Table 16). The elementary mean was 6 and the secondary mean was 4. The elementary median was 6 and the secondary median was 2. Only three elementary students had no initiations, whereas nine secondary students had no initiations The range for the secondary students was wider than that of the elementary students (0-19 and 0-15 respectively).

TABLE 16
FREQUENCY DISTRIBUTIONS OF CLASSROOM INITIATIONS
FOR ELEMENTARY AND SECONDARY SENSORIALLY IMPAIRED STUDENTS

Number of Interactions	Elementary SIS			Secondary SIS		
	Number	%	Cum. %	Number	%	Cum. %
0-9	15	79	79	20	76	76
10-19	4	21	100	6	24	100
20-29						
30-39						
40-49						
50+						
TOTAL	19	100%		26	100%	
	Range 0 - 15 Mean 6 Median 6			Range 0 - 19 Mean 4 Median 2		

The numbers of initiations were all in the lowest two intervals, and there were no differences of any magnitude in the two intervals.

Male Versus Female Sensorially Impaired Students

The male and the female SIS were very similar in their number of initiations (Table 17).

TABLE 17
FREQUENCY DISTRIBUTIONS OF CLASSROOM INITIATIONS
FOR MALE AND FEMALE SENSORIALLY IMPAIRED STUDENTS

Number of Interactions	Male SIS			Female SIS		
	Number	%	Cum. %	Number	%	Cum. %
0-9	18	82	82	17	74	74
10-19	4	18	100	6	26	100
20-29						
30-39						
40-49						
50+						
TOTAL	22	100%		23	100%	
	Range 0 - 19 Mean 5 Median 4			Range 0 - 13 Mean 5 Median 5		

Initiation Summary

The range for the initiation category was limited, and, therefore, there was little opportunity to detect differences between any groups. Almost all students in the groups had initiations in the 0-9 interval. It would appear that the main limitation of this category was the need for more extensive sampling of behavior in order to detect meaningful differences. A larger sampling of behavior would have allowed for greater variability in numbers of initiations. The limited spread of numbers that occurred in a smaller sampling was to be expected since initiation was likely to be a less frequent behavior: for any given interaction there was only one initiation, but many responses may follow if the interaction is maintained.

III. RESPONSE

Sensorially Impaired Students Versus Peers

Three students in the SIS group had no responses during the observation, and the range of the SIS group was 0-41 (Table 18). For the P group, no students had zero responses, and the range was 5-43. The means of the two groups were different: the SIS had an average of 14 responses, and the P had an average of 20. Half of the SIS group had responses below 12 and half of the peers had responses below 21.

TABLE 18

FREQUENCY DISTRIBUTION OF CLASSROOM RESPONSES FOR SENSORIALLY IMPAIRED STUDENTS AND PEERS

Number of Interactions	Sensorially Impaired			Peers		
	Number	%	Cum. %	Number	%	Cum. %
0-9	20	44	44	9	20	20
10-19	14	31	75	11	24	44
20-29	4	9	84	15	33	77
30-39	6	13	97	9	20	97
40-49	1	2	100	1	2	100
50+						
TOTAL	45	100%		45	100%	
	Range 0 - 41 Mean 14 Median 12			Range 5 - 43 Mean 20 Median 21		

In examining the data, it can be observed that almost half (44%), of the SIS had responses in the lowest intervals, 0-9, and more than three-fourths (75%) of the SIS had responses in the lowest two intervals together, 0-19. The peer group, in comparison, had only one-fifth (20%) in the lowest interval, and about one-half (44%) in the lower two intervals combined. As was true in the total interaction comparisons, there was little difference in the upper intervals of responding. The differences occurred at the lower

intervals of response, where a greater number of sensorially impaired students had responses in the lowest intervals than did their peers.

Vision Impaired Versus Hearing Impaired Students

The pattern of differences between the vision and hearing impaired students for total interaction was similar to the pattern for the response category. Vision impaired students had fewer responses than did hearing impaired students (Table 19). The means for the two groups were 12 and 16 respectively. More than half (55%) of the vision impaired students had responses in the lowest interval, as opposed to one-third (33%) of the hearing impaired students. The difference at the very lowest frequency of responses reflected the greatest difference between the two groups.

TABLE 19
FREQUENCY DISTRIBUTION OF CLASSROOM RESPONSE
FOR VISION IMPAIRED AND HEARING IMPAIRED STUDENTS

Number of Interactions	Vision Impaired			Hearing Impaired		
	Number	%	Cum. %	Number	%	Cum. %
0-9	12	55	55	8	33	35
10-19	6	27	82	8	35	70
20-29	1	5	87	3	13	83
30-39	3	14	100	3	13	96
40-49				1	4	100
50+						
TOTAL	22	100%		23	100%	
	Range 0 - 35 Mean 12 Median 9			Range 0 - 41 Mean 16 Median 14		

Elementary Versus Secondary Sensorially Impaired Students

Although there were some differences between the elementary and secondary sensorially impaired students in terms of the numbers of responses observed, the differences do not reveal any trends. Elementary sensorially impaired students had a smaller range of responses, 1-33, than did the secondary students whose responses ranged from 0-41. Secondary students had more extreme scores including three students who had no responses. Means were almost identical, but the elementary median (13) was slightly higher than that of the secondary median (10).

TABLE 20

FREQUENCY DISTRIBUTION OF CLASSROOM RESPONSES
FOR ELEMENTARY AND SECONDARY SENSORIALLY IMPAIRED STUDENTS

Number of Interactions	Elementary SIS			Secondary SIS		
	Number	%	Cum. %	Number	%	Cum. %
0-9	8	42	42	12	48	48
10-19	7	37	79	7	24	72
20-29	2	11	90	2	8	80
30-39	2	11	100	4	16	96
40-49				1	4	100
50+						
TOTAL	19	100%		26	100%	
	Range 1 - 33 Mean 13 Median 13			Range 0 - 41 Mean 14 Median 10		

Comparing the numbers of students in each of the intervals revealed little in the way of differences.

Male Versus Female Sensorially Impaired

Differences between numbers of responses of male and female sensorially impaired students were relatively similar (Table 21) and requires no separate discussion.

TABLE 21

FREQUENCY DISTRIBUTION OF CLASSROOM RESPONSES
FOR MALE AND FEMALE SENSORIALLY IMPAIRED STUDENTS

Number of Interactions	Male SIS			Female SIS		
	Number	%	Cum. %	Number	%	Cum. %
0-9	9	41	41	11	48	48
10-19	7	32	73	7	30	78
20-29	1	5	78	3	13	91
30-39	4	18	96	2	9	100
40-49	1	5	100			
50+						
TOTAL	22	100%		23	100%	
	Range 0 - 41 Mean 15 Median 13			Range 0 - 39 Mean 12 Median 10		

Response Summary

Analysis of the response category followed the pattern of that of total interaction. This is not surprising, since the initiation category was utilized so little. Sensorially impaired students had fewer responses than their peers. Upon comparison of the sensorially impaired subgroups, vision impaired students more often had fewer responses than hearing impaired students.

IV. VERBAL INTERACTION

Sensorially Impaired Students Versus Peers

The range of verbal interactions for all sensorially impaired students was 0-46, with 6 students (13%) having no verbal interactions. The peer interactions ranged from 4-41; none of the peers had zero interactions. The mean number of verbal interactions for SIS was 15, and for P, 21. The median for SIS was 12, and for P, 20 (Table 22). The average number of verbal interactions was higher for the P than SIS which was similar to the trend found for total interactions.

TABLE 22

FREQUENCY DISTRIBUTION OF VERBAL CLASSROOM INTERACTIONS FOR SENSORIALLY IMPAIRED STUDENTS AND PEERS

Number of Interactions	Sensorially Impaired			Peers		
	Number	%	Cum. %	Number	%	Cum. %
0-9	18	40	40	9	20	20
10-19	12	27	67	11	24	44
20-29	6	13	80	14	31	76
30-39	7	2	96	10	22	98
40-49	2	4	100	1	2	100
50+						
TOTAL	45	100%		45	100%	
	Range 0 - 46 Mean 15 Median 12			Range 4 - 41 Mean 21 Median 20		

As with total interactions, there was relatively little difference between the SIS and P in the higher intervals of interacting. There were, again, more SIS at the lower levels of interactions. Forty percent of the SIS had verbal interactions in the lowest interval, 0-9, as compared to 20%

of the P. The same pattern was seen for verbal interaction as with total interaction: very similar percentages appear at the upper levels of interactions, but a greater percentage of SIS than P appeared at the lower intervals of interaction.

Vision Impaired Versus Hearing Impaired Students

The range of verbal interactions for vision impaired students was from 0-42 and for hearing impaired students from 0-46. The vision impaired group had 2 students with no interactions and the hearing group had 4 students with no verbal interactions. The means for the two groups were equal (mean = 16), but the median was higher for the hearing impaired group than vision impaired students (median = 13) versus (median = 9).

TABLE 23
FREQUENCY DISTRIBUTION OF VERBAL CLASSROOM INTERACTIONS
FOR VISION IMPAIRED AND HEARING IMPAIRED STUDENTS

Number of Interactions	Vision Impaired			Hearing Impaired		
	Number	%	Cum. %	Number	%	Cum. %
0-9	11	50	50	7	30	30
10-19	3	14	64	9	39	69
20-29	6	27	91	0	0	69
30-39	1	5	96	6	26	95
40-49	1	5	100	1	4	100
50+						
TOTAL	22	100%		23	100%	
	Range 0 - 42 Mean 16 Median 9			Range 0 - 46 Mean 16 Median 13		

The larger proportion of vision impaired students in the lower intervals of interaction was seen again in this comparison. Half (50%) of the vision impaired students had verbal interactions in the 0-9 interval and 14% had verbal interactions in the 10-19 interval (64% total). In contrast,

the hearing impaired students were about evenly divided between the lower two categories: 30% are in the 0-9 interval and 39% in the 10-19 interval. Again, the pattern of a greater number of vision impaired students having fewer interactions is apparent.

Elementary Versus Secondary Sensorially Impaired Students

Differences between numbers of responses of elementary and secondary sensorially impaired students were slight, and require no discussion. One interesting difference was that only one elementary SIS has no verbal interactions, while 5 secondary SIS has no verbal interaction (Table 24).

TABLE 24
FREQUENCY DISTRIBUTION OF VERBAL CLASSROOM INTERACTIONS
FOR ELEMENTARY AND SECONDARY SENSORIALLY IMPAIRED STUDENTS

Number of Interactions	Elementary SIS			Secondary SIS		
	Number	%	Cum. %	Number	%	Cum. %
0-9	6	32	32	12	46	46
10-19	6	32	64	6	23	69
20-29	3	16	80	3	12	81
30-39	4	21	100	3	12	93
40-49				2	8	100
50+						
TOTAL	19	100%		26	100%	
	Range 0 - 36 Mean 16 Median 13			Range 0 - 46 Mean 14 Median 11		

Male Versus Female Sensorially Impaired Students

There was a somewhat wider range for males than females: from 0-46 and from 0-37 respectively. The mean for males was slightly higher (mean = 16) than for females (mean = 14), as was the median (median = 13) and (median = 11) (Table 25).

The distributions of verbal interactions were very similar for males and females.

TABLE 25
FREQUENCY DISTRIBUTION OF VERBAL CLASSROOM INTERACTION
FOR MALE AND FEMALE SENSORIALLY IMPAIRED STUDENTS

Number of Interactions	Male SIS			Female SIS		
	Number	%	Cum. %	Number	%	Cum. %
0-9	9	41	41	9	39	39
10-19	5	23	64	7	31	70
20-29	3	14	78	3	13	83
30-39	3	14	92	4	17	100
40-49	2	9	100			
50+						
TOTAL	22	100%		23	100%	
	Range 0 - 46 Mean 16 Median 13			Range 0 - 37 Mean 14 Median 11		

Verbal Interaction Summary

The most important finding with regard to verbal interaction was the similarity of results to those for total interaction. Sensorially impaired students were observed interacting verbally at the lower levels of interaction more often than their peers, and vision impaired students were found to interact verbally at the lower level of interaction more often than hearing impaired students.

V. NON-VERBAL INTERACTION

Sensorially Impaired Students Versus Peers

The range of non-verbal interactions was from 0-12 for sensorially impaired students and from 0-11 for peers. Five SIS had zero non-verbal interactions while three P had none. The mean for both groups is 4. The median for sensorially impaired students was 3, and the median for peers was 4 (Table 26).

TABLE 26
FREQUENCY DISTRIBUTION OF NON-VERBAL CLASSROOM INTERACTIONS
FOR SENSORIALLY IMPAIRED STUDENTS AND PEERS

Number of Interactions	Sensorially Impaired			Peers		
	Number	%	Cum. %	Number	%	Cum. %
0-9	40	89	89	44	98	98
10-19	5	11	100	1	2	100
20-29						
30-39						
40-49						
50+						
TOTAL	45	100%		45	100%	
	Range 0 - 12 Mean 4 Median 3			Range 0 - 11 Mean 4 Median 4		

Most students in both groups had interactions in the lowest interval: 89% of the SIS and 98% of the P had 0-9 interactions. There was little difference within either group or between the two groups in terms of numbers of non-verbal interaction.

Vision Impaired Versus Hearing Impaired Students

There was little difference between vision and hearing impaired students in their observed non-verbal interaction. The range was from 0-10 for vision impaired students and from 0-12 for hearing impaired students. The means and median were similar: the mean number of non-verbal interactions for vision impaired students was 3 and for hearing impaired students the mean was 5. Half the vision impaired students had fewer than 2 non-verbal interactions (median = 2) and half the hearing impaired students had fewer than 5 non-verbal interactions (median = 5). Four vision impaired students had zero non-verbal interactions, as compared to only one hearing impaired student with zero non-verbal interactions (Table 27).

TABLE 27
FREQUENCY DISTRIBUTION OF NON-VERBAL CLASSROOM INTERACTIONS FOR VISION IMPAIRED AND HEARING IMPAIRED STUDENTS

Number of Interactions	Vision Impaired			Hearing Impaired		
	Number	%	Cum. %	Number	%	Cum. %
0-9	21	96	96	19	83	83
10-19	1	5	100	4	17	100
20-29						
30-39						
40-49						
50+						
TOTAL	22	100%		23	100%	
	Range 0 - 10 Mean 3 Median 2			Range 0 - 12 Mean 5 Median 5		

Elementary Versus Secondary Sensorially Impaired Students

All elementary students (100%) had non-verbal interactions in the 0-9 interval, and most secondary students (80%) were in this interval. The means for the two groups were equal (mean = 4), and the medians were very close: the elementary median was 4 and the secondary median was 3 (Table 28).

One elementary SIS had zero non-verbal interactions while four secondary SIS had zero non-verbal interactions.

TABLE 28

FREQUENCY DISTRIBUTION OF NON-VERBAL CLASSROOM INTERACTIONS FOR ELEMENTARY AND SECONDARY SENSORIALLY IMPAIRED STUDENTS

Number of Interactions	Elementary SIS			Secondary SIS		
	Number	%	Cum. %	Number	%	Cum. %
0-9	19	100	100	21	81	81
10-19				5	19	100
20-29						
30-39						
40-49						
50+						
TOTAL	19	100%		26	100%	
	Range 0 - 7 Mean 4 Median 4			Range 0 - 12 Mean 4 Median 3		

The major difference seemed to be the few extreme cases at both ends of the distribution for the secondary students: there were more secondary students (16%) than elementary students (5%) who had no non-verbal interactions. There were also more secondary students (20%) than elementary students (0%) who are in the 10-19 interactions interval.

Non-verbal Interaction Summary

The major finding with regard to non-verbal interaction is that it accounted for very little interaction as observed. This may reflect less actual non-verbal behavior or it may reflect a limitation of the instrument in how categories were defined. Non-verbal interaction may also represent a more subtle form of communication which is difficult to record reliably, and, therefore, is recorded less. In order to understand more fully non-verbal classroom communication, a closer look should be made at the subleties of non-verbal communication, a purpose for which this more general observation instrument was not designed.

VI. NEGATIVE INTERACTION

Sensorially Impaired Students Versus Peers

Negative interaction was recorded very rarely and accounted for very little of the total interaction observed (Table 29). Eight-six percent (86%) of the SIS had no negative interactions, and 79% of the P had no negative interactions recorded. The range for the SIS was from 0-1 and for the P from 0-3. The mean and the median for both groups was less than 1. Clearly negative interactions were not recorded for most students.

TABLE 29
FREQUENCY DISTRIBUTION OF NEGATIVE CLASSROOM INTERACTIONS
FOR SENSORIALLY IMPAIRED STUDENTS AND PEERS

Number of Interactions	Sensorially Impaired			Peers		
	Number	%	Cum. %	Number	%	Cum. %
0-9	45	100	100	45	100	100
10-19						
20-29						
30-39						
40-49						
50+						
TOTAL	45	100%		45	100%	
	Range 0 - 1 Mean 1 Median 1			Range 0 - 3 Mean 1 Median 1		

Because of the frequency of recorded negative interaction, comparisons by impairment, school level and sex were not deemed necessary.

Negative Interaction Summary

Negative interaction was rarely recorded, and was observed too infrequently to note patterns or differences among groups. Whether this reflects little negative behavior actually occurring in the classroom or whether it

reflects a measurement problem is not clear. Requirements for recording behavior as negative were rather stringent in order to increase reliability of recording. Also, there were occasions when students were at a distance from observer and the precise words that students used in interacting could not be understood. It was clear to the observer that students were interacting, and that the interaction was verbal, but the interaction could not be recorded as negative because the conversation was unintelligible. If this category is of interest then more refinement of definition is necessary to pinpoint specific behaviors.

VII. POSITIVE INTERACTION

Sensorially Impaired Students Versus Peers

Because there was so little negative interaction recorded, the results for positive interaction are virtually identical to that of total interaction (Table 30).

TABLE 30
FREQUENCY DISTRIBUTION OF POSITIVE CLASSROOM INTERACTIONS FOR SENSORIALLY IMPAIRED STUDENTS AND PEERS

Number of Interactions	Sensorially Impaired			Peers		
	Number	%	Cum. %	Number	%	Cum. %
0-9	16	36	36	6	13	14
10-19	8	18	54	7	16	29
20-29	10	22	76	15	33	62
30-39	5	11	87	11	24	86
40-49	5	11	98	6	13	100
50+						
TOTAL	45	100%		45	100%	
	Range 0 - 56 Mean 19 Median 19			Range 7 - 49 Mean 26 Median 25		

Positive Interaction Summary

Results of the positive interaction category were almost identical to these for total interaction.

VIIII. STUDENT-TEACHER INTERACTION

Sensorially Impaired Students versus Peers

The sensorially impaired students and their peers were similar in the amount of student-teacher interaction that was observed: the range was from 0-25 for the SIS and from 0-18 for P (Table 31). The means were 7 and 5 respectively, and the medians were equal (median = 5). Six SIS had no interactions with the teacher while 4 P had the same number.

TABLE 31
FREQUENCY DISTRIBUTION OF CLASSROOM STUDENT - TEACHER INTERACTIONS FOR SENSORIALLY IMPAIRED STUDENTS AND PEERS

Number of Interactions	Sensorially Impaired			Peers		
	Number	%	Cum. %	Number	%	Cum. %
0-9	33	73	73	41	91	91
10-19	11	24	97	4	9	100
20-29	1	2	100			
30-39						
40-49						
50+						
TOTAL	45	100%		45	100%	
	Range 0 - 25 Mean 7 Median 5			Range 0 - 18 Mean 5 Median 5		

Most students in both groups were in the lowest interval (0-9): 74% of the SIS and 90% of the P. There was somewhat more student-teacher interaction for sensorially impaired students than peers, but differences were not great.

Vision Impaired Versus Hearing Impaired Students

The vision impaired students were observed as interacting somewhat more often with their teachers than hearing impaired students: ranges were from 0-25 for vision impaired students and from 0-18 for hearing impaired students. The mean was 8 student-teacher interactions for the vision impaired students as compared to a mean of 5 for the hearing impaired students. The medians were 7 and 4, respectively (Table 32). Two vision impaired students had no interactions with teachers while four hearing impaired students had none.

TABLE 32
FREQUENCY DISTRIBUTION OF CLASSROOM STUDENT - TEACHER INTERACTIONS FOR VISION AND HEARING IMPAIRED STUDENTS

Number of Interactions	Vision Impaired			Hearing Impaired		
	Number	%	Cum. %	Number	%	Cum. %
0-9	15	68	68	18	78	78
10-19	6	27	95	5	22	100
20-29	1	5	100			
30-39						
40-49						
50+						
TOTAL	22	100%		23	100%	
	Range 0 - 25 Mean 8 Median 7			Range 0 - 18 Mean 5 Median 4		

The differences that exist between vision and hearing impaired students were primarily within the 0-9 interval. Sixty-eight percent (68%) of the vision impaired students and 78% of the hearing impaired students were in this least frequent interval of interaction. Both groups were interacting with teachers at intervals within the same general range, but the vision impaired students were observed as interacting with teachers somewhat more frequently than hearing impaired students.

Elementary Versus Secondary Sensorially Impaired Students

Although the maximum number for secondary SIS was higher than for the elementary students, the elementary SIS students interacted with teachers with more frequency than did secondary SIS. The range for the elementary group was from 0-18 and for the secondary students from 0-25 (Table 33). The mean for the elementary group was 8 and for the secondary group 5. The medians were 7 and 3 respectively. One elementary SIS had no interactions with teachers while five secondary SIS had an equal number.

TABLE 33
FREQUENCY DISTRIBUTION OF CLASSROOM STUDENT - TEACHER INTERACTIONS FOR ELEMENTARY AND SECONDARY SENSORIALLY IMPAIRED STUDENTS

Number of Interactions	Elementary SIS			Secondary SIS		
	Number	%	Cum. %	Number	%	Cum. %
0-9	12	63	63	21	81	81
10-19	7	37	100	4	1	96
20-29				1	4	100
30-39						
40-49						
50+						
TOTAL	19	100%		26	100%	
	Range 0 - 18 Mean 8 Median 8			Range 0 - 25 Mean 5 Median 3		

As was true with impairment differences, the difference occurred within the lowest interval of interaction: that is, most students interacted fewer than 10 times, and the variation was within that interval. Elementary students, however, were most often interacting at the upper end of the 0-9 interval and secondary studetns more often at the lower end of the 0-9 interval.

Male Versus Female Sensorially Impaired Students

There was virtually no difference between the two groups when comparisons were made by sex (Table 34). Two male SIS had zero interactions with teachers and four female SIS had zero interactions.

TABLE 34
FREQUENCY DISTRIBUTION OF CLASSROOM TEACHER - STUDENT INTERACTIONS FOR MALE AND FEMALE SENSORIALLY IMPAIRED STUDENTS

Number of Interactions	Male SIS			Female SIS		
	Number	%	Cum. %	Number	%	Cum. %
0-9	16	73	73	17	74	74
10-19	5	23	96	6	26	100
20-29						
30-39						
40-49						
50+						
TOTAL	22	100%		23	100%	
	Range 0 - 25 Mean 7 Median 5			Range 0 - 15 Mean 6 Median 5		

Student-Teacher Interaction Summary

Most students interacted with teachers fewer than 10 times so there was little variation among groups of students. There was a slight tendency for vision impaired students to interact more with teachers than hearing impaired students, and a slight tendency for elementary students to interact more with teachers than did secondary students.

Summary of Interaction Observation

Forty-five sensorially impaired students and their peers were observed in two classroom observations for the purpose of recording interactions with other students and with teachers. When recording interaction, several dimensions were utilized: mode of interaction (verbal or non-verbal), direction of interaction (initiation or response), and quality of interaction (positive or negative).

The purpose of the observation was to gather basic information with regard to the interaction of sensorially impaired students in their classrooms. Each dimension of interaction was defined and comparisons of interaction behavior were made based upon data collected through the observation procedure. Upon examination of these dimensions as defined and outlined, a pattern became apparent; within each dimension, one category accounted for most of the interaction, while the other category shows little variation because it was used infrequently.

Most interaction was verbal, positive, and responsive. Decisions regarding further refinement of all categories are necessary in the context of the goals of the project.

Two outcomes were of particular interest to the RIM project. One was the higher proportion of SIS students who interacted at the lower levels of interaction than did their peers. The other outcome of interest was the similar range of interactions observed for sensorially impaired students with their peers, with some students in both groups interacting frequently and others infrequently.

When looking at differences between sensory impairments, it appeared that more vision impaired students tended to interact in the lower intervals than did hearing impaired students. School level and sex accounted for little difference between vision impaired and hearing impaired groups.

These observations represent an important step in gathering information about the interaction of students in mainstream settings. Further refinement of categories and definitions, as well as observations in other settings, may prove helpful in exploring this area in future studies. Also, other methods of gathering data should be utilized in conjunction with observation techniques.

TEACHER QUESTIONNAIRE

Purpose

Baseline information on the extent and nature of interaction of sensorially impaired students in mainstream settings is helpful for comprehensive District 287 Student Support Services program planning. A RIM Project objective was to determine the nature and extent of interaction that occurred between sensorially impaired students and their classmates and teachers. One perspective from which to assess such interaction was that of the classroom teacher.

Method

The Teacher Questionnaire was a set of 6 questions designed to gain information from the teachers' perspectives about the interaction of sensorially impaired students in their classrooms. Questions focus on interaction between sensorially impaired students and their classmates, and on the variables that might affect interaction. The questions included from three to six alternative responses. Each teacher was asked to choose the response that best described the sensorially impaired student in the classroom.

Sample

Teacher Questionnaires were completed by 68 of the 75 teachers in whose classrooms observations of Sample I students were conducted. The respondents teach in Minneapolis and suburbs.

Of the teachers completing the Questionnaire, 35 had a vision impaired student in their class and 33 had a hearing impaired student in their class.

Thirty-eight were elementary school teachers and 30 taught in secondary schools. Thirty are male; 38 are female.

Procedure

The Teacher Questionnaire was distributed to each teacher of a Sample I sensorially impaired student. Some Questionnaires were given directly to teachers following a classroom observation, while other Questionnaires were mailed to teachers. A total of 75 Questionnaires were distributed and 68 were returned by mail or in person. The response rate was 91%.

Analysis

Each question will be reported separately. For each question, a table showing the responses for all sensorially impaired students is given. Tables for vision and hearing impaired students, elementary and secondary sensorially impaired students, and male and female sensorially impaired students are also presented.

The percentage of responses and the number (n) of responses are reported. Each percentage is based on the number of questionnaires returned by teachers, not the number of students in the sample. The number of responses reported for each question may vary because of missing responses. Teachers occasionally marked more than one response for a question and when this occurred, none of the responses for that question were included.

A discussion follows each subsection. Similarities and differences between groups are noted. Differences were not tested for statistical significance (i.e. to test hypotheses) but were examined informally in order to generate hypotheses for further inquiry.

Results

QUESTION 1:
He/she most frequently spends unstructured time (free time in class; time before and after class)

____ alone
____ with one friend (always the same)
____ with one friend (may be a different person from day to day)
____ with a small group (2-5 friends)
____ with a large group (more than 5)
____ with a teacher
____ other (please explain)

Table 35
Total Responses to Question 1

Response	Total %	Total Number
alone	34%	19
with one friend (always the same)	7%	4
with one friend (may be a different person from day to day)	23%	13
with a small group (2-5 friends)	34%	19
with a large group (more than 5)	0%	0
with a teacher	2%	1
Total	100%	36

It can be seen that most sensorially impaired students (68%) were reported as most frequently spending unstructured time either "alone" (34%) or "with a small group" (34%). These two categories were used equally by teachers. The only other category used frequently by teachers is "with one friend (may be a different person from day to day", which accounted for almost one-fourth (23%) of the responses.

A seventh category, "other," was available to teachers for this question. While 6 teachers, or 10% of the total responses, used this category, no new

situations describing use of unstructured time were revealed by this category. Responses in the "other" category were not included in reporting total number or responses or used in calculating percentages.

Table 36
Comparison of Responses to Question 1 for
Vision Impaired Versus Hearing Impaired Students

Response	Vision Impaired %	Vision Impaired Number	Hearing Impaired %	Hearing Impaired Number
alone	41%	11	28%	8
with one friend (always the same)	7%	2	7%	2
with one friend (may be a different person from day to day)	11%	3	35%	10
with a small group (2-5 friends)	37%	10	31%	9
with a large group (more than 5)	0%	0	0%	0
with a teacher	4%	1	0%	0
Total	100%	27	100%	29

More vision impaired students (41%) than hearing impaired students (28%) were described as spending most of their unstructured time "alone." On the other hand, more hearing impaired students (35%) than vision impaired students (11%) were perceived as spending unstructured time "with one friend."

Table 37
Comparison of Responses to Question 1 for
Elementary Versus Secondary Sensorially Impaired Students

Response	Elementary %	Elementary Number	Secondary %	Secondary Number
alone	12%	2	44%	17
with one friend (always the same)	6%	1	8%	3
with one friend (may be a different person from day to day)	35%	6	18%	7
with a small group (2-5 friends)	41%	7	31%	12
with a large group (more than 5)	0%	0	0%	0
with a teacher	6%	1	0%	0
Total	100%	17	100%	39

Almost half of the secondary students (44%) were reported in the "alone" category while very few elementary school children (12%) were seen as most frequently spending their unstructured time "alone." More elementary students (35%), however, were reported as spending unstructured time "with one friend" than is true for secondary (18%).

Table 38
Comparison of Responses to Question 1 for
Male Versus Female Sensorially Impaired Students

Response	Male %	Male Number	Female %	Female Number
alone	35%	9	33%	10
with one friend (always the same)	8%	2	7%	2
with one friend (may be a different person from day to day)	15%	4	30%	9
with a small group (2-5 friends)	42%	11	27%	8
with a large group (more than 5)	0%	0	0%	0
with a teacher	0%	0	3%	1
Total	100%	26	100%	30

Approximately one-third of both males and females were described as most frequently spending unstructured time alone. Females were more often seen spending time "with one friend" than were males (30% versus 15%). Males in contrast were more often reported as spending time "with a small group" than were females (42% versus 27%).

QUESTION 2:
In social interaction, he/she most frequently tends to

____ approach others (initiate)
____ wait to be approached (react)
____ approach others and be approached about equally
____ avoid interaction
____ cannot say

Table 39
Total Responses to Question 2

Response	Total %	Total Number
approach others (initiate)	9%	5
wait to be approached (react)	33%	19
approach others and be approached about equally	57%	33
avoid interaction	2%	1
Total	100%	58

Two categories contained 90% of the responses; the "wait to be approached" category accounted for 33% of the response, but the most common response was "approach others and be approached about equally" with 57%.

A fifth category, "cannot say", was available to teachers for this question, and 8 teachers (12% of the total responses) indicated that they could not specify which kind of interaction behavior the sensorially impaired student demonstrated most often. These responses, while of interest, were not included in the total responses or percentages reported.

Table 40
Comparison of Responses to Question 2 for
Vision Impaired Versus Hearing Impaired Students

Response	Vision Impaired %	Vision Impaired Number	Hearing Impaired %	Hearing Impaired Number
approach others (initiate)	10%	3	7%	2
wait to be approached (react)	47%	14	18%	5
approach others and be approached about equally	40%	12	75%	21
avoid interaction	3%	1	0%	0
Total	100%	30	100%	28

Two categories accounted for a large portion of the responses for both groups (87% of vision impaired students and 93% of hearing impaired students). The categories most frequently used were "wait to be approached (react)" and "approach others and be approached about equally." However, within these

categories, the distribution of responses were markedly different.

Almost half of the vision impaired students (47%) were in the "wait to be approached" category whereas only 18% of the hearing impaired students were described this way. Hearing impaired students were more often in the "approach others and be approached about equally" category than were vision impaired students (75% versus 40%).

Table 41
Comparison of Responses to Question 2 for
Elementary Versus Secondary Sensorially Impaired Students

Response	Elementary %	Elementary Number	Secondary %	Secondary Number
approach others (initiate)	22%	4	3%	1
wait to be approached (react)	17%	3	40%	16
approach others and be approached about equally	61%	11	55%	22
avoid interaction	0%	0	3%	1
Total	100%	18	100%	40

Some differences were suggested when comparing elementary and secondary sensorially impaired students for this question. A higher percentage of elementary students than secondary students were considered to be in the "approach others" category (22% versus 3%). A greater difference, however, was in the "wait to be approached" category: more secondary sensorially impaired students (40%) were regarded as waiting to be approached than elementary sensorially impaired students (17%).

Table 42
Comparison of Responses to Question 2 for
Male Versus Female Sensorially Impaired Students

Response	Male %	Male Number	Female %	Female Number
approach others (initiate)	13%	4	4%	1
wait to be approached (react)	29%	9	37%	10
approach others and be approached about equally	55%	17	59%	16
avoid interaction	3%	1	0%	0
Total	100%	31	100%	27

The distribution of responses describing males and females were very similar.

QUESTION 3:
Compared with other students in your class, this student tends to interact with other students

____ less frequently than most
____ about as often as most
____ more frequently than most

Table 43
Total Responses to Question 3

Response	Total %	Total Number
less frequently than most	50%	34
about as often as most	41%	28
more frequently than most	9%	6
Total	100%	68

It can be seen that the responses were about equally divided between the categories "less frequently" (50%) and "about as often" (41%). Few teachers (9%) perceived sensorially impaired students interacting "more often" than other students in their class.

Table 44
Comparison of Responses to Question 3 for
Vision Impaired Versus Hearing Impaired Students

Response	Vision Impaired %	Vision Impaired Number	Hearing Impaired %	Hearing Impaired Number
less frequently than most	61%	20	40%	14
about as often as most	24%	8	57%	20
more frequently than most	15%	5	3%	1
Total	100%	33	100%	35

More than half (61%) of the responses about vision impaired students fell in the "less frequently" category, while an almost equal number (57%) of the responses about hearing impaired students were in the "about as often" category.

A large number of hearing impaired students (40%) were also seen in the "less frequently" category. Although the "more often" category was not used frequently for either group, a larger percentage of vision impaired than hearing impaired students (15% versus 3%) were described interacting "more often" than their classmates.

Table 45
Comparison of Responses to Question 3 for
Elementary Versus Secondary Sensorially Impaired Students

Response	Elementary %	Elementary Number	Secondary %	Secondary Number
less frequently than most	32%	7	59%	27
about as often as most	59%	13	33%	15
more frequently than most	9%	2	9%	3
Total	100%	22	100%	45

Almost one-third (32%) of the responses about elementary students were in the "less frequently" category, while almost two-thirds (59%) were in the "about as often" category. Almost the opposite pattern was observed for secondary students. Nearly two-thirds (59%) of the secondary students were described as interacting "less frequently" than their classmates. Only one-third (33%) were described as interacting "about as often".

Table 46
Comparison of Responses to Question 3 for
Male Versus Female Sensorially Impaired Students

Response	Male %	Male Number	Female %	Female Number
less frequently than most	44%	15	56%	19
about as often as most	41%	14	41%	14
more frequently than most	15%	5	3%	1
Total	100%	34	100%	34

More females (56%) than males (44%) were seen interacting "less frequently" than their classmates. Slightly more males than females (15% versus 3%) were seen as interacting "more often" than their classmates.

QUESTION 4:
From your perspective, how visible is his/her impairment with regard to appearance?

____ not noticeable
____ somewhat noticeable
____ very noticeable

Table 47
Total Responses to Question 4

Response	Total %	Total Number
not noticeable	45%	31
somewhat noticeable	37%	25
very noticeable	16%	11
Total	100%	67

Eighty-two percent (82%) of the responses to this question appeared in the first two categories, "not noticeable" and "somewhat noticeable", with little difference between their use (45% and 37%). Only 16% of the teachers viewed students' impairments as "very noticeable".

Table 48
Comparison of Responses to Question 4 for
Vision Impaired Versus Hearing Impaired Students

Response	Vision Impaired %	Vision Impaired Number	Hearing Impaired %	Hearing Impaired Number
not noticeable	18%	6	74%	25
somewhat noticeable	64%	21	12%	4
very noticeable	18%	6	14%	5
Total	100%	33	100%	34

In analyzing this question on the basis of impairment, striking differences were seen. Almost three-fourths (74%) of the hearing impaired students were seen as having an impairment that is "not noticeable" in appearance as compared to only 18% of the vision impaired students. Over half (64%) of the visi

impaired students, however, were seen as having an impairment that is "somewhat noticeable", while only 12% of the hearing impaired students were perceived as having a "somewhat noticeable", impairment. Few students from both groups were seen as having a "very noticeable" impairment (18% and 14%) .

Table 49
Comparison of Responses to Question 4 for
Elementary Versus Secondary Sensorially Impaired Students

Response	Elementary %	Elementary Number	Secondary %	Secondary Number
not noticeable	36%	8	51%	23
somewhat noticeable	23%	5	44%	20
very noticeable	41%	9	4%	2
Total	100%	22	100%	40

One-half of the secondary students (51%) were seen as having an impairment that was "not noticeable" ir appearance, while approximately one-third (36%) of the elementary students were seen in this category. More secondary students were also perceived as having an impairment that is "somewhat noticeable" (44% versus 23%). There was high use of the "very noticeable" category in relation to elementary students with 41% of the responses occurring here, very few secondary students (4%) were perceived as having impairments that were very noticeable.

Table 50
Comparison of Responses to Question 4 for
Male Versus Female Sensorially Impaired Students

Response	Male %	Male Number	Female %	Female Number
not noticeable	49%	16	44%	15
somewhat noticeable	30%	10	44%	15
very noticeable	21%	7	12%	4
Total	100%	33	100%	34

There is a fairly even distribution of males and females in the "not noticeable" category (49% and 44%). More females (44%) than males (30%) were seen as having a "somewhat noticeable" impairment, while more males than females were seen as having a "very noticeable" impairment (21% versus 12%).

QUESTION 5:
From your perspective how visible is his/her impairment with regard to function?

____ not noticeable
____ somewhat noticeable
____ very noticeable

Table 51
Total Responses to Question 5

Response	Total %	Total Number
not noticeable	23%	14
somewhat noticeable	53%	33
very noticeable	24%	15
Total	100%	62

Clearly, most responses fell in the middle category, "somewhat noticeable" and the other responses were equally divided between the other two categories.

Table 52
Comparison of Responses to Question 5 for
Vision Impaired Versus Hearing Impaired Students

Response	Vision Impaired %	Vision Impaired Number	Hearing Impaired %	Hearing Impaired Number
not noticeable	17%	5	27%	9
somewhat noticeable	55%	16	52%	17
very noticeable	28%	8	21%	7
Total	100%	29	100%	33

Analysis of this question by impairment revealed a pattern similar to that for the total sensorially impaired population. Over half of the responses for both groups appeared in the "somewhat noticeable" category. Differences appeared in the "not noticeable" category, where slightly more hearing impaired students were seen as having an impairment that was "not noticeable" functionally than were vision impaired students (27% versus 17%).

Table 53
Comparison of Responses to Question 5 for
Elementary Versus Secondary Sensorially Impaired Students

Response	Elementary %	Elementary Number	Secondary %	Secondary Number
not noticeable	23%	5	23%	9
somewhat noticeable	55%	12	53%	21
very noticeable	23%	5	25%	10
Total	100%	22	100%	40

In examining responses pertaining to elementary and secondary students, there were no differences of any magnitude. Approximately half of both elementary students and secondary students were seen as having a "somewhat noticeable" impairment (55% and 53%) in regards to function.

Table 54
Comparison of Responses to Question 5 for
Male Versus Female Sensorially Impaired Students

Response	Male %	Male Number	Female %	Female Number
not noticeable	28%	8	18%	6
somewhat noticeable	52%	15	55%	18
very noticeable	21%	6	27%	9
Total	100%	29	100%	33

With respect to visibility of impairment in function, there were no large differences between males and females in any of the categories. Approximately half of both male and female students (52% and 55%) were seen as having a "somewhat noticeable" impairment with regard to function.

QUESTION 6:
From your own observation, how well do you think he/she is accepted by his/her peers?

____ very well
____ well
____ not well
____ not at all

Table 55
Total Responses to Question 6

Response	Total %	Total Number
very well	29%	19
well	60%	39
not well	11%	7
not at all	0%	1
Total	100%	66

Eighty-nine percent (89%) of the responses occurred in the "very well" or "well" categories, with the majority of responses (60%) in the "well" category.

Table 56
Comparison of Responses to Question 6 for
Vision Impaired Versus Hearing Impaired Students

Response	Vision Impaired %	Vision Impaired Number	Hearing Impaired %	Hearing Impaired Number
very well	29%	9	29%	10
well	55%	17	65%	22
not well	16%	5	6%	2
not at all	0%	0	0%	1
Total	100%	31	100%	35

The responses when broken down by impairment were also very similar. The only difference was that more hearing impaired students (65%) were in the "well" category than vision impaired students (55%).

Table 57
Comparison of Responses to Question 6 for
Elementary Versus Secondary Sensorially Impaired Students

Responses	Elementary %	Elementary Number	Secondary %	Secondary Number
very well	32%	7	28%	12
well	55%	12	63%	27
not well	14%	3	9%	4
not at all	-	-	-	-
Total	100%	22	100%	44

There were no striking differences when the responses for elementary students were compared with the responses for secondary students.

Table 58
Comparison of Responses to Question 6 for
Male Versus Female Sensorially Impaired Students

Response	Male %	Male Number	Female %	Female Number
very well	24%	8	33%	11
well	61%	20	58%	19
not well	12%	4	9%	3
not at all	3%	1	0%	0
Total	100%	33	100%	33

There were no large differences between males and females in this question.

Summary

INTERACTION

Vision Impaired Sample Students

When looking at the amount and kind of classroom interaction of vision impaired students from a teacher's perspective, the following summary can be made. More than half (61%) of the vision impaired students in this sample were seen interacting less frequently than their classmates. A few (15%) of the students, however, were seen interacting more frequently than other students in their classroom. The majority of sample vision impaired students were seen as spending most of their unstructured time either alone (41%) or with a small group (37%). In terms of direction of interaction, almost half of the students (47%) were seen as waiting to be approached, while many of the students (40%) were seen as approaching others and being approached about equally.

Hearing Impaired Sample Students

In social interaction, more than half (57%) of the hearing impaired sample students were described as interacting about as often as their classmates, while 40% were described as interacting less often than their classmates. With almost equal frequency, the hearing impaired sample students were described as spending unstructured time with one friend (35%), with a small group (31%) or alone (28%). Most hearing impaired sample students (75%) were seen as approaching others and being approached about equally.

Elementary Sensorially Impaired Sample Students

Over half (59%) of the elementary sample students were seen as interacting about as often as other students, whereas about one-third (32%) were perceived as interacting less frequently than their classmates. Most spent their unstructured time either with a small group (41%) or with one friend (35%). Almost two-thirds (61%) were described as approaching others and being approached about equally.

Secondary Sensorially Impaired Sample Students

Over half (59%) of the secondary students were seen as interacting less frequently than other students, whereas one-third (33%) were perceived as interacting about as often as their classmates. With respect to the direction of social interaction, slightly more than half (55%) of the secondary students were seen approaching others and being approached about equally. However, a large percentage (40%) of the students were perceived as most often waiting to be approached. Secondary students were seen spending unstructured time alone (44%) or with a small group (2-5 friends) (31%).

Male and Female Sensorially Impaired Sample Students

The differences between male and female sensorially impaired students was not pronounced with regard to social interaction. More than half of both males and females were described as approaching others and being approached about equally (55% and 59%), and a sizeable percentage of both males and females

were seen as waiting to be approached (29% and 37%).

When examining frequency of interaction, males and females were also similar in that 41% of both groups were described as interacting about as often as their classmates. However, differences in the frequency of interaction for males and females can be seen when looking at the distribution of the responses in the other two categories. Over half of the females (56%) were seen as interacting less frequently than their classmates while only 3% were seen as interacting more frequently. Although a large percentage of the males (44%) were also seen as interacting less frequently, a few males (15%) were described as interacting more frequently than other students in their classrooms.

When examining the responses regarding use of unstructured time, males were seen as spending time either with a small group or alone (42% and 35%) whereas females were seen as spending unstructured time alone (35%), with one friend (may be a different person from day to day) (30%), or with a small group (27%).

VISIBILITY OF IMPAIRMENT

Appearance

Most vision impaired students (64%) were described as having an impairment that was somewhat noticeable in appearance. Eighteen percent (18%) of the students were seen as having an impairment that was not noticeable, and 18% of the students were seen as having an impairment that was very noticeable.

Hearing Impaired Sample Students

Almost three-fourths (74%) of the hearing impaired students were described as having an impairment that was not noticeable in appearance. Twelve percent (12%) were seen as having an impairment that was somewhat noticeable, and 14% were seen as having an impairment that was not noticeable.

Elementary Sensorially Impaired Sample Students

Elementary students were most often described by the extreme categories: 41% were seen as having a very noticeable impairment and 36% were seen as

having an impairment that was not noticeable in appearance.

Secondary Sensorially Impaired Sample Students

The majority of secondary students were seen as having an impairment that was not noticeable (51%) or somewhat noticeable (44%) in appearance.

Male Sensorially Impaired Sample Students

Almost half (49%) of the male students were regarded as having an impairment that was not noticeable in appearance. The distribution of students in the remaining two categories was similar: 30% of the students were seen as having a somewhat noticeable impairment and 21% of the students were seen as having an impairment that is very noticeable in appearance.

Female Sensorially Impaired Sample Students

Female sensorially impaired students were described with equal frequency as having an impairment that was not noticeable (44%) or somewhat noticeable (44%) in appearance. Very few females (12%) were seen as having a noticeable impairment.

Function

Slightly more than half (53%) of the sensorially impaired students were seen as having an impairment that was somewhat noticeable in regards to function. Approximately one-fourth of the students were described by the extreme categories: 23% were seen as having an impairment that was not noticeable and 24% were seen as having an impairment that was very noticeable in function. This pattern occurred for all groups of students.

Acceptance

When asked for their global impression of how well the sensorially impaired student was accepted by classmates, teachers saw most of the sensorially impaired students as being well or very well accepted (60% and 29%). This pattern occurred for all groups of students (vision and hearing impaired students, elementary and secondary students, and male and female students).

PIERS-HARRIS CHILDREN'S SELF CONCEPT SCALE

Purpose

The social and personal growth of sensorially impaired students has been identified as an important consideration in the program planning of District 287 Student Support Services. Many educators consider the attitudes and feelings that students have toward themselves as important aspects of social and personal growth. A RIM Project objective was to gather information about the self-attitudes of sensorially impaired students utilizing a standardized instrument and to examine the information gained in terms of its validity and utility for Student Support Services program planning.

Method

The Piers-Harris Children's Self Concept Scale was chosen from existing self-esteem measures for children for use in the RIM Project. It was chosen for its relative item clarity, the relatively low correlation with social desirability, and the information available on the scale's development and use that provided some context for looking at the Project's results. The Piers-Harris is an 80-item yes/no scale for which 6 clusters of items have been identified: 1) behavior, 2) intellectual and school status, 3) physical appearance and attributes (relates to status and popularity), 4) anxiety, 5) popularity, and 6) happiness and satisfaction. The scale is written in declarative first-person sentences at a third-grade reading level, and asks the child to respond to items in terms of how he/she generally feels.

The Piers-Harris was standardized on 1183 Pennslyvania school children from grades 4 to 12. Although normative data is available, the developers of the scale recommend the development of local norms. Some modification of

of the Piers-Harris seemed appropriate in order to use this instrument with a sensorially impaired population. Because hearing impaired students sometimes experience difficulty with the vocabulary and syntax of language, and because the sample included a few children who were younger than the normative sample, it was important to develop a controlled means of clarifying sentence meaning for statements used in the Piers-Harris. Standard definitions were developed so that if students asked questions regarding the meanings of words or phrases used in the scale all staff would respond similarly.

When appropriate, brailled copies were made available to vision impaired students.

Sample

The Piers-Harris was administered to 43 sensorially impaired students from Sample I population and 107 non-impaired students (referred to hereafter as the comparison group).

Comparison group students were the members of four classrooms, one each of grades 3, 5, 8, and 11. The classrooms were located in three schools within the District 287 area. The group was composed of 59 males and 48 females; 54 of the students were in elementary grades, and 53 were in secondary grades.

Procedure

Each sensorially impaired student met privately with a RIM staff member who informed the student about the RIM Project, the Piers-Harris, and the anonymity of all information obtained. If the student agreed to complete the Piers-Harris the scale was administered at that time or was scheduled for a time more convenient for the student.

Standard explanations and instructions were used by all staff members including a statement that the student could ask questions if words or phrases were not understood. Each statement was read orally to the student and repeated. Time was provided for the student to read the statement if the student preferred, and to respond. Standard definitions were given to words and phrases upon

request. If needed, guidance was given in circling responses in the appropriate place on the form.

In order to develop local norms, a comparison group of students from 3 area schools were given the Piers-Harris by two school psychologists. Students were informed that their participation was requested to help a research project compare the self attitudes of vision impaired and hearing impaired students with those of other students. Demographic information (grade, sex) was collected. Students were informed that all information would be used as group information only. The school psychologist administered the scale to four classrooms of students at grades 3, 5, 8, and 11. Questions were read aloud to elementary students and were read by the students themselves in secondary settings.

Analysis

Three analyses will be reported.

1) The response pattern of hearing impaired sample students will be compared with that of the comparison group.
2) The mean total and cluster scores for the sensorially impaired sample and comparison group will be reported and compared.
3) Individual items on the scale will be examined.

A description of each of these analyses follows.

THE RESPONSE PATTERN OF HEARING IMPAIRED SAMPLE STUDENTS

The reliability of information obtained from using a language based self concept test, such as the Piers-Harris, with hearing impaired students is of concern. Therefore, it was considered important to examine the response pattern of hearing impaired students prior to any presentation of their scores on the scale. A graph will be used to present information regarding response patterns for a sample of items. The percentage of hearing impaired sample students and comparison group students answering each item in the scored direction will be shown. This is done to rule out the possibility of random responding. Item content is not of interest in this examination of students' responses; rather the focus of this examination will be on the general pattern of response.

MEAN TOTAL AND CLUSTER SCORES

Mean total Piers-Harris scores and mean scores for each of the six clusters were obtained for the sensorially impaired students as a whole. Mean total scores and mean scores for the clusters were determined separately for vision impaired students, hearing impaired students, elementary sensorially impaired students, secondary sensorially impaired students, male sensorially impaired students, and female sensorially impaired students. Mean total and cluster scores were also obtained for the comparison group as a whole, and for elementary, secondary, male and female comparison group students. Tables will show these results.

Several comparisons are of interest and have been tested for statistical significance, with the significance level set at $p \leq .05$. This means that if a comparison is statistically significant, the chances that the results could have been obtained by chance are 5%. The following comparisons will be reported:

Sample I (SIS)

Vision impaired versus hearing impaired students

Elementary versus secondary sensorially impaired students

Male versus female sensorially impaired students

Comparison Group

Elementary versus secondary comparison group students

Male versus female comparison group students

Sensorially Impaired Students versus Comparison Group Students

Total Sensorially Impaired Students versus total Comparison Group

Elementary SIS versus elementary Comparison Group

Secondary SIS versus secondary Comparison Group

Male SIS versus male Comparison Group

Female SIS versus female Comparison Group

INDIVIDUAL ITEMS

The Piers-Harris is a negatively skewed scale which means that most items are answered in the scored (positive) direction by most students. Items

on which 50% or fewer of the vision impaired sample, hearing impaired sample or comparison group students responded in the scored direction will be reported. The item will be presented, and the percentage and number of students in each group who responded in the scored direction will be given.

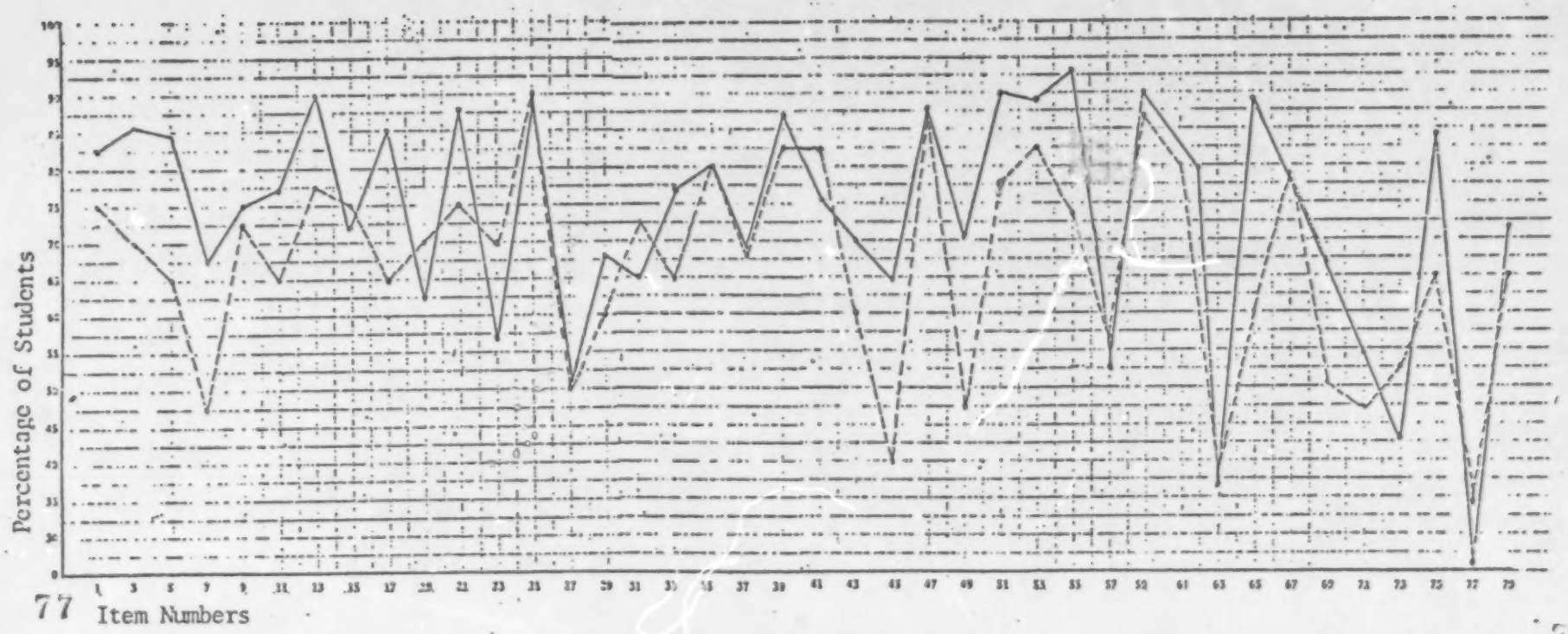
Results

THE RESPONSE PATTERN OF HEARING IMPAIRED SAMPLE STUDENTS

The response pattern of the hearing impaired sample was compared to that of the comparison group for a sample of 31 items. The following graph shows the percentage of students in each group who responded to each of the items in the scored direction. The number of comparison group students was 107, and percentages were based on that number. The number of hearing impaired students was relatively small (n=23), and small changes in the numbers of students may appear as a large change in percentage.

Figure 10 shows that the response patterns for the two groups were very similar. Although the hearing impaired students generally scored lower than the comparison group students, the general patterns of response remained the same. Since the hearing impaired sample response pattern did not appear to be random, confidence in the reliability of information obtained from the use of this scale with hearing impaired children was increased.

Figure 10
The Percentage of Hearing Impaired Sample Students and Comparison Group Students Answering a Sample of Piers-Harris Items in the Scored Direction



--- Percentage of Hearing Impaired Sample Students Answering each Piers-Harris Item in the Scored Direction
___ Percentage of Comparison Group Students Answering each Piers-Harris Item in the Scored Direction

MEAN TOTAL AND CLUSTER SCORES

Sensorially Impaired Students

•Vision Impaired versus Hearing Impaired Students

Table 59 shows the descriptive statistics for total Piers-Harris scores of sensorially impaired students in the sample. This information is also presented separately for vision and hearing impaired students.

Table 59
Descriptive Statistics for Mean Total Piers-Harris Scores of Sensorially Impaired Students (SIS) and Vision and Hearing Impaired Students

Statistic	Total SIS (N=43)	Impairment Vision (N=21)	Hearing (N=22)
Range	28-78	28-78	36-76
Mean	57.7	59.9	55.6
Standard Deviation	12.5	13.7	11.3
Median	60.0	53.0	54.0

There were no significant differences noted between the total Piers-Harris scores of vision impaired and hearing impaired students. The vision impaired group had a mean total score of 59.9 and the hearing impaired students had a mean total score of 55.6.

There were no differences in any of the six cluster scores for vision impaired and hearing impaired students.

•Elementary versus Secondary Sensorially Impaired Students

Table 60 shows the mean total and cluster scores for all sensorially impaired students. Scores are also given separately by school level (elementary and secondary) and by sex.

Table 60
Piers-Harris Mean Total and Cluster Scores for Sensorially Impaired Students: Total Sensorially Impaired Students and by School Level and Sex

		Total SIS	School Level		Sex	
			Elementary	Secondary	Male	Female
Total Score	$\bar{X}$	57.7	54.1	60.5	59.9	55.8
	sd	12.5	12.3	12.2	11.8	13.1
Cluster 1 (Behavior)	$\bar{X}$	12.9	12.1	13.6	13.0	12.8
	sd	2.9	3.3	2.4	2.7	3.2
Cluster 2 (Intellectual & school status)	$\bar{X}$	11.7	11.9	11.6	12.2	11.3
	sd	3.9	3.5	4.3	4.2	3.7
Cluster 3 (Physical appearance & attributes	$\bar{X}$	8.9	8.7	9.0	9.8 *	8.0
	sd	2.9	2.9	2.9	2.6	2.9
Cluster 4 (Anxiety)	$\bar{X}$	10.3	9.3 *	11.1	11.2 *	9.4
	sd	2.8	2.8	2.6	2.3	3.0
Cluster 5 (Popularity)	$\bar{X}$	7.4	6.6	8.1	8.0	6.8
	sd	2.8	2.8	2.6	2.6	2.9
Cluster 6 (Happiness & satisfaction)	$\bar{X}$	8.5	8.0	9.0	8.9	8.2
	sd	1.7	1.8	1.4	1.5	1.8

$\bar{X}$ = mean sd = standard deviation

* differences between means significant at $p \leq .05$.

Elementary school sensorially impaired students had lower total scores than secondary sensorially impaired students (mean = 54.1 and mean = 60.5), but this difference was not significant.

Only the scores for the anxiety cluster were significantly different with the secondary students scoring higher (answering items in such a way as to admit to less anxiety) than the elementary students (mean = 11.1 and mean = 9.3). While this was the only difference that is significant at the $p \leq .05$ level, the total scores and three cluster scores (intellectual and school status; popularity; and happiness and satisfaction) differed between $p \leq .05$ and $p \leq .10$. The difference was always in the same direction with elementary students answering fewer questions in a positive direction.

•Male versus Female Sensorially Impaired Students

Male sensorially impaired students had slightly higher total scores than did female sensorially impaired students, although the scores do not differ significantly (mean = 59.9 and mean = 55.8).

The scores for two clusters, however, were significantly different: males scored high on the physical appearance and attributes cluster (mean = 9.8 and mean = 8.0), and admitted to less anxiety on the questions included in the anxiety cluster (mean = 11.2 and mean = 9.4).

Comparison Group Students

Table 61 shows the mean total and cluster scores of all comparison group students. Scores are also given separately by school level (elementary and secondary) and by sex.

Table 61
Piers-Harris Mean Total and Cluster Scores for Comparison Group Students: Total Comparison Group and by School Level and Sex

		Total	School Level		Sex	
			Elementary	Secondary	Male	Female
Total Score	$\bar{X}$	60.9	61.5	60.1	63.6 *	57.9
	sd	11.1	9.9	12.4	8.9	12.5
Cluster 1 (Behavior)	$\bar{X}$	13.4	13.0	11.9	13.3	13.5
	sd	2.4	2.2	2.6	2.4	2.4
Cluster 2 (Intellectual & school status)	$\bar{X}$	12.6	13.3 *	11.9	13.3 *	11.8
	sd	3.4	2.6	3.9	2.8	3.8
Cluster 3 (Physical appearance & attributes)	$\bar{X}$	8.9	9.0	9.0	9.7 *	8.1
	sd	3.0	2.9	3.1	2.7	3.2
Cluster 4 (Anxiety)	$\bar{X}$	10.7	11.3	10.1	11.5 *	9.7
	sd	3.2	2.9	3.4	2.5	3.6
Cluster 5 (Popularity)	$\bar{X}$	8.0	7.7	8.4	8.3	7.6
	sd	2.4	2.6	2.1	2.4	2.4
Cluster 6 (Happiness & satisfaction)	$\bar{X}$	8.6	8.7	8.6	9.0	8.2
	sd	1.8	1.9	1.7	1.4	2.1

$\bar{X}$ = mean sd = standard deviation

* differences between means significant at $p \leq .05$.

•Elementary versus Secondary Comparison Group Students

The total scores of the elementary and secondary comparison group students do not differ significantly from each other (mean = 61.5 and mean = 60.1).

One cluster showed a significant difference for these two groups and that was the intellectual and school status cluster (mean = 13.3 and mean = 11.9).

•Male versus Female Comparison Group Students

Male comparison group students scored significantly higher on their score than did female comparison group students (mean = 63.6 and 57.9). On three cluster scores, differences were also significant: males scored higher on intellectual and school status (mean = 13.3 and mean = 11.8); physical appearance and attributes (mean = 9.7 and mean = 8.1); and admitted to less anxiety on the anxiety cluster (mean = 11.5 and mean = 9.7).

•Sensorially Impaired Students versus Comparison Group Students

Table 62 presents total and cluster scores for all sensorially impaired students and for all comparison group students. Students within each group were compared by school level and sex.

The mean total score of the sensorially impaired sample students was 57.7 with a standard deviation of 11.1. The two groups showed no significant difference on total score. Both the sensorially impaired students and the comparison group had scores which are higher than that of the norm group whose mean was 51.8 and standard deviation 13.9. Difference from the norm group had not been tested for statistical significance.

The only breakdown showing a significant difference in total score between the sensorially impaired students and comparison groups was for elementary school students: sensorially impaired elementary school children had significantly lower total scores than comparison group elementary school children (mean = 54.1 and mean = 61.5). The elementary school children also differed significantly on the anxiety cluster from the comparison group elementary students (mean = 9.3 and mean = 11.3).

Secondary students in the sensorially impaired group and comparison group did not differ significantly on total score (mean = 60.5 and mean = 60.1). They did differ significantly on the behavior cluster from comparison group secondary students (mean = 13.6 and mean = 11.9).

Table 62
Piers-Harris Mean Total and Cluster Scores for
Sample I Sensorially Impaired Students (SIS)
and Comparison Group (Comp.)

		Total		School Level: Elementary		Secondary		Sex: Male		Female	
		SIS	Comp.	SIS	Comp.	SIS	Comp.	SIS	Comp.	SIS	Comp.
Total Score	$\bar{X}$	57.7	60.9	54.1 *	61.5	60.5	60.1	59.9	63.6	55.8	57.9
	sd	12.5	11.1	12.3	9.9	12.2	12.4	11.8	8.9	13.1	12.5
Cluster 1 (Behavior)	$\bar{X}$	12.9	13.4	12.1	13.0	13.6 *	11.9	13.0	13.3	12.8	13.5
	sd	2.9	2.4	3.3	2.2	2.4	2.6	2.7	2.4	3.2	2.4
Cluster 2 (Intellectual & school status)	$\bar{X}$	11.7	12.6	11.9	13.3	11.6	11.9	12.2	13.3	11.3	11.8
	sd	3.9	3.4	3.5	2.6	4.3	3.9	4.2	2.8	3.7	3.8
Cluster 3 (Physical appearance & attributes)	$\bar{X}$	8.9	8.9	8.7	9.0	9.0	9.0	9.8	9.7	8.0	8.1
	sd	2.9	3.0	2.9	2.9	2.9	3.1	2.6	2.7	2.9	3.2
Cluster 4 (Anxiety)	$\bar{X}$	10.3	10.7	9.3 *	11.3	11.1	10.1	11.2	11.5	9.4	9.7
	sd	2.8	3.2	2.8	2.9	2.6	3.4	2.3	2.5	3.0	3.6
Cluster 5 (Popularity)	$\bar{X}$	7.4	8.0	6.6	7.7	8.1	8.4	8.0	8.3	6.8	7.6
	sd	2.8	2.4	2.8	2.6	2.6	2.1	2.6	2.4	2.9	2.4
Cluster 6 (Happiness & satisfaction)	$\bar{X}$	8.5	8.6	8.0	8.7	9.0	8.6	8.9	9.0	8.2	8.2
	sd	1.7	1.8	1.8	1.9	1.4	1.7	1.5	1.4	1.8	2.1

$\bar{X}$ = mean sd = standard deviation

* differences between means significant at $p \leq .05$

Summary of Mean Score Differences

The Piers-Harris was administered to 44 sensorially impaired students and 107 non-sensorially impaired students. The total scores of the two groups were compared. Scores were also compared for elementary SIS and elementary comparison group students, secondary SIS and secondary comparison group students, male SIS and male comparison group students, and female SIS and female comparison group students. The only comparison for which there was a significant difference was for the elementary SIS and elementary comparison group students. The elementary SIS students scored lower.

Differences between SIS and comparison group students were also noted on 2 clusters. Elementary SIS scored lower on anxiety (admitted to more anxiety) than did elementary comparison group students. Secondary SIS scored higher on the behavior cluster than did secondary comparison group students.

Within the sensorially impaired sample, there was no difference in total scores between students based on type of impairment (vision and hearing), by school level (elementary and secondary) or by sex. There were some significant differences of cluster scores, however. Sensorially impaired secondary students scored higher than elementary students on the anxiety cluster (admitting to less anxiety). Sensorially impaired males scored higher than females on physical appearance and attributes and anxiety (admitting to less anxiety).

Within the comparison group, the only significant difference in total score was between males and females, with males scoring higher. Males differed most from females on the intellectual and school status cluster, physical appearan and attributes cluster, and the anxiety cluster. Elementary and secondary students differed on intellectual and school status with elementary students scoring higher.

INDIVIDUAL ITEMS

Table 63 contains items on which 50% or fewer of the vision impaired sample, hearing impaired sample, or comparison group responded in the scored direction. The scored direction is the response that test developers selected as indicating a positive attitude toward oneself.

Table 63
Piers Harris Items on Which
50% or Less of Respondents in Any Group
Responded in the Scored Direction

	Scored Response	Percent of Students Responding in the Scored Direction		
		Vision	Hearing	Comparison
7. I get nervous when the teacher calls on me.	no	73% (n=16)	48% (n=11)	68% (n=72)
10. I get worried when we have tests in school.	no	41% (n=9)	52% (n=12)	51% (n=55)
18. I usually want my own way.	no	55% (n=12)	35% (n=8)	48% (n=51)
26. I am slow in finishing my work.	no	59% (n=13)	48% (n=11)	71% (n=76)
27. I am an important member of my class.	yes	59% (n=13)	50% (n=11)	51% (n=55)
29. I have pretty eyes.	yes	50% (n=11)	61% (n=14)	68% (n=72)
32. I pick on my brothers and sisters.	no	73% (n=16)	35% (n=8)	54% (n=54)
38. My parents expect too much of me.	no	68% (n=15)	48% (n=11)	67% (n=70)
42. I often volunteer in school.	yes	68% (n=15)	48% (n=11)	55% (n=80)
45. I hate school.	no	42% (n=19)	40% (n=18)	64% (n=68)
49. My classmates in school think I have good ideas.	yes	68% (n=15)	48% (n=11)	71% (n=74)
63. I am a leader in games and sports.	yes	32% (n=7)	39% (n=9)	36% (n=37)
77. I am different from other people.	no	41% (n=9)	44% (n=10)	28% (n=30)

Summary

The response pattern of hearing impaired sample students was compared to that of comparison group students. A very similar pattern of response was demonstrated indicating that the hearing impaired students in this sample were not responding randomly due to language difficulties.

The mean scores of the sensorially impaired students and comparison group students were also examined. Sensorially impaired students and comparison group students did not differ significantly in total scores.

Items which had unusually low (less than 50%) rate of responses in the scored directon were also noted. These items will be utilized in outlining areas of further inquiry.

STUDENT INTERVIEWS

Purpose

The social and personal aspects of mainstreaming have been identified as important considerations in the program planning of District 287 Student Support Services. An underlying assumption of the RIM Project is that there is value in gaining information about the social and personal impact of mainstreaming from a variety of perspectives. An important objective for the first year was learning more about the social and personal impact of mainstreaming from the perspective of the sensorially impaired student.

Method

The RIM Interview was designed to elicit information about the social and personal experiences of sensorially impaired students in mainstream settings. Interview questions were selected after consultation with groups of vision impaired students, hearing impaired students, and teachers. Sixteen major topics were delineated and provide the framework for the interview.

1. School classes
2. Materials and aids
3. Seating
4. Getting along with teachers
5. Help from teachers
6. Help from other people
7. Feeling singled out/left out
8. Extra-curricular activities
9. Difficulties in school

10. Perceptions of classmates' attitudes
11. Perceptions of friends' attitudes
12. Perceptions of parents' attitudes
13. Understanding vision/hearing problems
14. Misconceptions about vision/hearing problems
15. Intrapersonal feelings
16. Mainstreaming

The RIM Interview includes both quantifiable (yes/no) questions and open-ended questions designed to encourage students to share personal feelings and experiences in a more narrative form. In general, quantifiable questions introduced interview topics and were followed by open-ended questions focusing on student reactions, feelings, or experiences.

The Interview was written in both elementary and secondary forms to accommodate differences in school experiences, language levels, and length-of-attention spans. The secondary interview was designed to be completed in 45-90 minutes, and the elementary interview was designed for two half-hour sessions.

Because some students experience difficulty with the vocabulary and syntax of language and may not understand interview questions, standard alternate questions were used when students expressed confusion with, or lack of understanding of, original questions. A sign language translation was also developed to provide a standard sign language presentation of interview and support questions.

Five part-time interviewers were hired by the Project to join the RIM staff in conducting the student interviews. To prepare the interviewers, three days of intensive inservice was provided in general interviewing techniques and principles. Instruction was also given in procedures for the introduction of the interview, the standard presentation of interview, use of alternate questions, and the conventions for recording students' responses. Interviewers participated in a variety of supervised role-play experiences, and opportunities for discussion and feedback were built into the inservice process at all levels. Interviewers also received instruction in techniques

for communicating with hearing impaired students. Interviewers who were skilled in sign language were instructed in the sign language presentation of both interview forms

Training and support continued throughout the interview process. Both individual and group sessions were scheduled to discuss interview experiences and concerns. Initial interviews conducted by the interviewers were tape recorded and reviewed in supervisory sessions with members of the Project staff.

Sample

A sample of 165 sensorially impaired students from 78 schools was selected to be interviewed. This sample included 46 sensorially impaired students randomly chosen for classroom observation and individual testing (Sample I). In addition, two out of three sensorially impaired students who were not a part of Sample I were selected as potential interview subjects. From this second group, 119 students were interviewed.

The Interview Sample represented approximately one-half of the total RIM sensorially impaired population. The following table shows the number and percentage of Interview Sample vision impaired students, hearing impaired students served itinerantly, and hearing impaired students served in resource rooms. The table also compares these figures with those of the Total RIM population.

Table 64
Comparison of Interview Sample
with Total RIM Population
Based on Impairment and Service

	Interview Sample		Total RIM Sensorially Impaired Population	
	Number	%	Number	%
Vision Impaired Students	61	37%	116	37%
Hearing Impaired Students Served Itinerantly	73	44%	125	40%
Hearing Impaired Students Served in Resource Rooms	31	19%	74	24%
Total	165	100%	315	100%

Of the 165 students in the Interview Sample, 59% of the students were male (n=98) and 41% were female (n=67). The students ranged in age from 6 to 19 years old. Forty-one percent (41%) of the students (n=67) were enrolled in elementary settings (grades 1-6) and 59% of the students (n=98) were enrolled in secondary settings (grades 7-12).

Vision impaired students were divided into three categories on the basis of visual acuity. The following table shows the distribution of Interview Sample vision impaired students on the basis of visual acuity and compares the distribution to that of the total RIM vision impaired population. Impairment figures were based on available information.

Table 65
Comparison of Vision Impaired Students
in Interview Sample and in Total RIM Population
Based on Visual Acuity

Visual Acuity	Interview Sample Vision Impaired Population		Total RIM Vision Impaired Population	
	Number	%	Number	%
20/20 - 20/60	6	10%	16	14%
20/70 - 20/190	21	36%	31	30%
20/200+	32	54%	63	56%
Total	59	100%	110	100%

Hearing impaired students were divided into six categories on the basis of degree of loss. The following table compares the distribution of Interview Sample to that of the total RIM hearing impaired population. Impairment figures were based on available information.

Table 66
Comparison of Hearing Impaired Students
in Interview Sample and in Total RIM Population
Based on Degree of Loss

Degree of Loss	Interview Sample Hearing Impaired Population		Total RIM Hearing Impaired Population	
	Number	%	Number	%
Normal (0-26 db)	7	7%	6	8%
Mild (27-40 db)	11	12%	20	10%
Moderate (41-55 db)	19	20%	34	18%
Moderately Severe (50-70 db)	12	13%	24	13%
Severe (71-90 db)	22	23%	46	24%
Profound (91+ db)	24	25%	52%	27%
Total	95	100%	192	100%

All vision impaired students received itinerant support. The following table shows the level of service distribution for Interview Sample vision impaired students, and compares the distribution to that of the total RIM vision impaired population.

Table 67
Comparison of Vision Impaired Students
in Interview Sample and in Total RIM Population
Based on Level of Service

Level of Service	Interview Sample Hearing Impaired Population		Total RIM Hearing Impaired Population	
	Number	%	Number	%
Surveillance	44	72%	80	72%
Direct	17	28%	30	28%
Total	61	100%	110	100%

Hearing impaired students receive either itinerant or resource support. The following table shows the level of service distribution for Interview Sample hearing impaired students and compares the distribution to that of the total RIM hearing population.

Table 68
Comparison of Hearing Impaired Students
in Interview Sample and in Total RIM Population
Based on Level of Service

Level of Service	Interview Sample Hearing Impaired Population		Total RIM Hearing Impaired Population	
	Number	%	Number	%
Itinerant				
Monitor	10	10%	19	9%
Surveillance	28	27%	61	31%
Direct	32	31%	42	21%
Resource	34	33%	77	39%
Total	104	100%	199	100%

Procedure

Each sensorially impaired student met privately with a RIM interviewer who informed the student about the RIM Project, the interview, and the anonymity of all student information. Student agreement to participate was requested.

Each interview item was read aloud to the student, and the interviewer recorded the student's response. Upon completion on the interview, the student was given an opportunity to ask questions and share feelings about the interview. A method was provided for contacting the Project staff if further questions or ideas arose.

Analysis

The responses of 162 students will be reported. Although 165 students were interviewed three students answered the interview questions in a way that suggested they did not understand the interview questions. Those three interviews were eliminated from the final figures. The first reporting section contains the responses of the total sensorially impaired interview sample. The second reporting section lists those questions showing statistically significant differences between group responses. Differences between the responses of vision impaired and hearing impaired students are shown as well as differences between the responses of males and females. Analysis was done separately for elementary and secondary students. The third reporting section contains the responses of hearing impaired students only and compares hearing impaired students in "stations" (resource room programs) with hearing impaired students in the itinerant program.

Quantifiable questions from both the elementary and secondary interview will be reported for each major area. When questions are the same for both elementary and secondary forms of the interview, they will be reported adjacent to one another on a page. Questions that occur only on one form of the interview will be reported separately for each content area.

Each question will be presented as it appeared in the interview. Below each question is a number (n) representing the total number of responses reported for that question. Response rate varies from question to question depending on applicability. Response columns appear next to the question column. These columns contain the percentage of each response to the questions, as well as the actual number (n) of students who gave that response. Readers are advised to attend to both the percentage and the actual number because the number of responses to questions does vary widely.

Results

The results of the student interview are reported by topic as follows.

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RIM INTERVIEW RESPONSES
CLASSES

ELEMENTARY	YES	NO	SECONDARY	YES	NO
			1b Do you take any different or special classes because you have a vision/hearing problem? (n=92)	38% (n=35)	62% (n=57)
1b Is there anything you want to do in school but they don't let you because of your vision/hearing problem? (n=64)	17% (n=11)	83% (n=53)	1d Are there any classes you'd like to take but aren't allowed to because you're vision/ hearing impaired? (n=90)	13% (n=12)	87% (n=78)

RIM INTERVIEW RESPONSES
MATERIALS AND AIDS - VISION

ELEMENTARY	YES	NO	SECONDARY	YES	NO
			2a Do you need glasses? (n=38)	71% (n=27)	29% (n=11)
2a Do you use glasses? (n=19)	47% (n=9)	53% (n=10)	2A Do you use glasses? (n=38)	74% (n=28)	26% (n=10)
			2b Do you need tapes? (n=39)	44% (n=17)	56% (n=22)
2b Do you use tapes? (n=19)	53% (n=10)	47% (n=9)	2B Do you use tapes? (n=40)	45% (n=18)	55% (n=22)
			2c Do you need large print? (n=40)	25% (n=10)	75% (n=30)
2c Do you use large print? (n=19)	53% (n=10)	47% (n=9)	2C Do you use large print? (n=40)	35% (n=14)	65% (n=26)
			2d Do you need braille books? (n=40)	13% (n=5)	88% (n=35)
2d Do you use braille books? (n=19)	16% (n=3)	84% (n=16)	2D Do you use braille books? (n=40)	13% (n=5)	88% (n=35)

RIM INTERVIEW RESPONSES
MATERIALS AND AIDS - VISION

ELEMENTARY	YES	NO	SECONDARY	YES	NO
			2e Do you need a brailler? (n=40)	10% (n=4)	90% (n=36)
2e Do you use a brailler? (n=19)	16% (n=3)	84% (n=16)	2E Do you use a brailler? (n=40)	10% (n=4)	90% (n=36)
			2f Do you need a magnifying glass? (n=37)	30% (n=11)	70% (n=26)
2f Do you use a magnifying glass? (n=19)	26% (n=5)	74% (n=14)	2F Do you use a magnifying glass? (n=37)	40% (n=15)	60% (n=22)
			2g Do you need any other aid? (n=40)	13% (n=5)	88% (n=35)
2g Do you use any other aid? (n=19)	11% (n=2)	89% (n=17)	2G Do you use any other aid? (n=39)	15% (n=6)	85% (n=33)

RIM INTERVIEW RESPONSES
MATERIALS AND AIDS - HEARING

ELEMENTARY	YES	NO	SECONDARY	YES	NO
			2h Do you need a hearing aid? (n=54)	83% (n=45)	17% (n=9)
2h Do you use a hearing aid? (n=45)	93% (n=42)	7% (n=3)	2H Do you use a hearing aid? (n=55)	75% (n=41)	25% (n=14
			2i Do you need a Phonic Ear? (n=54)	13% (n=7)	87% (n=47
2i Do you use a Phonic Ear? (n=45)	49% (n=22)	51% (n=23)	2I Do you use a Phonic Ear? (n=54)	13% (n=7)	87% (n=47
			2j Do you need any other aid? (n=55)	2% (n=1	98% (n=54
2j Do you use any other aid? (n=45)	4% (n=2)	96% (n=43)	2J Do you use any other aid? (n=54)	2% (n=1)	98% (n=53

RIM INTERVIEW RESPONSES
MATERIALS AND AIDS - VISION

SECONDARY	NOT AVAIL.	DIS-LIKE
The following questions apply only to students who stated they need a material or aid but do not use the material or aid.		
2Q Why don't you use glasses? (n=3)	33% (n=1)	67% (n=2)
2R Why don't you use tapes? (n=1)	100% (n=1)	0% (n=0)
2S Why don't you use large print? (n=1)	100% (n=1)	0% (n=0)
2V Why don't you use a magnifying glass? (n=1)	100% (n=1)	0% (n=0)
2W Why don't you use any other aid? (n=1)	100% (n=1)	0% (n=0)

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RIM INTERVIEW RESPONSES
MATERIALS AND AIDS - VISION

ELEMENTARY	LIKE	DIS-LIKE	NEUT.	SECONDARY	LIKE	DIS-LIKE	NEUT.
2A How do you feel about using glasses? (n=9)	33% (n=3)	22% (n=2)	44% (n=4)	2q How do you feel about using glasses? (n=27)	30% (n=8)	30% (n=8)	41% (n=11)
2B How do you feel about using tapes? (n=8)	75% (n=6)	13% (n=1)	13% (n=1)	2r How do you feel about using tapes? (n=13)	69% (n=9)	8% (n=1)	23% (n=3)
2C How do you feel about using large print? (n=9)	89% (n=8)	0% (n=0)	11% (n=1)	2s How do you feel about using large print? (n=13)	54% (n=7)	46% (n=6)	0% (n=0)
2D How do you feel about using braille? (n=3)	67% (n=2)	0% (n=0)	33% (n=1)	2t How do you feel about using braille? (n=4)	100% (n=4)	0% (n=0)	0% (n=0)
2E How do you feel about using a brailler? (n=3)	33% (n=1)	33% (n=1)	33% (n=1)	2u How do you feel about using a brailler? (n=4)	75% (n=3)	25% (n=1)	0% (n=0)
2F How do you feel about using a magnifying glass? (n=4)	100% (n=4)	0% (n=0)	0% (n=0)	2v How do you feel about using a magnifying glass? (n=15)	53% (n=8)	27% (n=4)	20% (n=3)
2G How do you feel about using any other aid? (n=2)	50% (n=1)	0% (n=0)	50% (n=1)	2w How do you feel about using any other aid? (n=4)	75% (n=3)	25% (n=1)	0% (n=0)

RIM INTERVIEW RESPONSES
MATERIALS AND AIDS - HEARING

ELEMENTARY	LIKE	DIS-LIKE	NEUT.	SECONDARY	LIKE	DIS-LIKE	NEUT.
2H How do you feel about using a hearing aid? (n=40)	35% (n=14)	35% (n=14)	30% (n=12)	2x How do you feel about using a hearing aid? (n=40)	60% (n=24)	18% (n=7)	23% (n=9)
2I How do you feel about using a phonic ear? (n=22)	45% (n=10)	50% (n=11)	5% (n=1)	2y How do you feel about using a phonic ear? (n=6)	50% (n=3)	33% (n=2)	17% (n=1)
2J How do you feel about using any other aid? (n=4)	75% (n=3)	25% (n=1)	0% (n=0)	2z How do you feel about using any other aid? (n=1)	100% (n=1)	0% (n=0)	0% (n=0)

RIM INTERVIEW RESPONSES
MATERIALS AND AIDS - HEARING

SECONDARY	NOT AVAIL.	DIS-LIKE
The following questions apply only to students who stated they need a material or aid but do not use the material or aid.		
2X Why don't you use a hearing aid? (n=4)	75% (n=3)	25% (n=1)
2Y Why don't you use a Phonic Ear? (n=1)	100% (n=1)	0% (n=0)
2Z Why don't you use any other aid? (n=1)	100% (n=1)	0% (n=0)

RIM INTERVIEW RESPONSES
SEATING

ELEMENTARY	YES	NO	SECONDARY	YES	NO
3a Is your desk in a special place so you can see or hear better? (n=64)	53% (n=34)	47% (n=30)	3a Do you sit in a special place in class so you can see or hear better? (n=91)	59% (n=54)	41% (n=37)
The following questions apply only to students who stated they sit in a special place.			The following questions apply only to students who stated they sit in a special place.		
3c Who told you to sit in a special place? You? (n=34)	21% (n=7)	79% (n=27)	3d Who suggested that you have a special seat? You? (n=56)	68% (n=38)	32% (n=18)
3p Who told you to sit in a special place? Parent? (n=34)	6% (n=2)	94% (n=32)	3h Who suggested that you have a special seat? Parent? (n=56)	16% (n=9)	84% (n=47)
3q Who told you to sit in a special place? Classroom teacher? (n=34)	62% (n=21)	38% (n=13)	3i Who suggested that you have a special seat? Classroom teacher? (n=56)	43% (n=24)	57% (n=32)
3r Who told you to sit in a special place? Vision/hearing teacher? (n=34)	15% (n=5)	85% (n=29)	3j Who suggested that you have a special seat? Vision/hearing teacher? (n=56)	9% (n=5)	91% (n=51)
3s Who told you to sit in a special place? Other? (n=34)	9% (n=3)	91% (n=31)	3k Who suggested that you have a special seat? Other? (n=56)	5% (n=3)	95% (n=53)

RIM INTERVIEW RESPONSES
SEATING

ELEMENTARY	YES	NO
3t Who told you to sit in a special place? Don't know? (n=34)	0% (n=0)	100% (n=34)
3d Can you see/hear better in your special seat? (n=32)	97% (n=31)	3% (n=1)
3f Is there any thing bad about sitting in a special place? (n=30)	30% (n=9)	70% (n=21)
The following question applies only to students who stated they do not sit in a special place.		
3b Do you want your desk in a special place? (n=30)	17% (n=5)	83% (n=25)

SECONDARY	YES	NO
3l Who suggested that you have a special seat? Don't know? (n=55)	2% (n=1)	98% (n=54)
3e Do you think your special seating helps you? (n=54)	91% (n=49)	9% (n=5)
3g Do you think there are any disadvantages to sitting in a special seat? (n=54)	20% (n=11)	80% (n=43)

RIM INTERVIEW RESPONSES
SEATING

SECONDARY	A	B	C
The following question applies only to students who stated they sit in a special place.			
3c In how many classes do you sit in a special place? (n=56)	36% (n=20)	23% (n=13)	41% (n=23)
A - In all classes			
B - In most classes			
C - In some classes			

RIM INTERVIEW RESPONSES
GETTING ALONG WITH TEACHERS
HELP FROM TEACHERS

SECONDARY	YES	NO
4a Do you think having a vision/hearing problem makes a difference in how you get along with teachers? (n=88)	43% (n=38)	57% (n=50)
5a Do teachers try to give you help in school because of your vision/hearing problem? (n=92)	76% (n=70)	24% (n=22)
The following question applies only to students who stated teachers do not try to give help because of their vision/hearing problem.		
5b Would you like more help from teachers in school? (n=19)	32% (n=6)	68% (n=13)

RIM INTERVIEW RESPONSES
GETTING ALONG WITH TEACHERS
HELP FROM TEACHERS

SECONDARY	A	B	C
The following question applies only to students who stated that having a vision/hearing problem makes a difference in getting along with teachers.			
4b How often does it make a difference? (n=36)	8% (n=3)	22% (n=8)	69% (n=25)
A - All of the time			
B - Most of the time			
C - Some of the time			
The following question applies only to students who stated that teachers give them help because of their vision/hearing problem.			
5d How often do teachers give you help? (n=63)	3% (n=2)	22% (n=14)	75% (n=47)
A - All of the time			
B - Most of the time			
C - Some of the time			

RIM INTERVIEW RESPONSES
HELP FROM OTHER PEOPLE

SECONDARY	YES	NO
6a Do you get help from a vision/hearing teacher? (n=94)	64% (n=60)	36% (n=34)
6b Do you get help from a teacher aid? (n=91)	12% (n=11)	88% (n=80)
6c Do you get help from a school nurse? (n=94)	13% (n=12)	87% (n=82)
6d Do you get help from a counselor? (n=92)	40% (n=37)	60% (n=55)
6e Do you get help from a notetaker? (n=92)	17% (n=16)	83% (n=76)
6f Do you get help from a student helper? (n=92)	29% (n=27)	71% (n=65)
6g Do you get help from friends? (n=92)	65% (n=60)	35% (n=32)
6h Do you get help from a mobility teacher? (n=39)	18% (n=7)	82% (n=32)

RIM INTERVIEW RESPONSES
HELP FROM OTHER PEOPLE

	SECONDARY	YES	NO
6i	Do you get help from an interpreter? (n=57)	30% (n=17)	70% (n=40)
6j	Do you get help from a speech teacher? (n=58)	62% (n=36)	38% (n=22)
6k	Do you get help from any other person? (n=90)	14% (n=13)	86% (n=77)

RIM INTERVIEW RESPONSES
FEELING SINGLED OUT/LEFT OUT

SECONDARY	YES	NO
7a Do you ever receive extra attention in the classroom? (n=93)	53% (n=49)	47% (n=44)
7b Do you ever receive extra attention at lunch? (n=94)	9% (n=8)	91% (n=86)
7c Do you ever receive extra attention in gym? (n=90)	28% (n=25)	72% (n=65)
7d Do you ever receive extra attention in the halls? (n=93)	13% (n=12)	87% (n=81)
7e Do you ever receive extra attention before or after school? (n=92)	17% (n=16)	83% (n=76)
7f Do you ever receive extra attention any other time? (n=93)	4% (n=4)	96% (n=87)

RIM INTERVIEW RESPONSES
FEELING SINGLED OUT/LEFT OUT

SECONDARY	LIKE	DIS-LIKE	NEUT.
The following questions apply only to students who stated they receive extra attention.			
7A How do you feel about extra attention in the classroom? (n=43)	42% (n=18)	33% (n=14)	26% (n=11)
7B How do you feel about extra attention at lunch? (n=7)	29% (n=2)	57% (n=4)	14% (n=1)
7C How do you feel about extra attention in gym? (n=20)	60% (n=12)	20% (n=4)	20% (n=4)
7D How do you feel about extra attention in the halls? (n=14)	29% (n=4)	50% (n=7)	21% (n=3)
7E How do you feel about extra attention before or after school? (n=15)	47% (n=7)	13% (n=2)	40% (n=6)
7F How do you feel about extra attention at any other time? (n=3)	33% (n=1)	33% (n=1)	33% (n=1)

RIM INTERVIEW RESPONSES
FEELING SINGLED OUT/LEFT OUT

ELEMENTARY	YES	NO	SECONDARY	YES	NO
5a Do you ever feel lonely or left out in the classroom? (n=63)	38% (n=24)	62% (n=39)	7o Do you ever feel lonely or left out in the classroom? (n=92)	33% (n=30)	67% (n=62)
5b Do you ever feel lonely or left out at lunch? (n=63)	16% (n=10)	84% (n=53)	7p Do you ever feel lonely or left out at lunch? (n=91)	16% (n=15)	84% (n=76)
5c Do you ever feel lonely or left out in gym? (n=63)	16% (n=10)	84% (n=53)	7q Do you ever feel lonely or left out in gym? (n=88)	20% (n=18)	80% (n=70)
5d Do you ever feel lonely or left out at recess? (n=63)	37% (n=23)	64% (n=40)			
5e Do you ever feel lonely or left out in the halls? (n=63)	17% (n=11)	83% (n=52)	7r Do you ever feel left out in the halls? (n= 91)	11% (n=10)	89% (n=81)
5f Do you ever feel lonely or left out before or after school? (n=61)	11% (n=7)	89% (n=54)	7s Do you ever feel left out before or after school activities? (n=92)	10% (n=9)	90% (n=83)
5g Do you ever feel lonely or left out at any other times? (n=63)	8% (n=5)	92% (n=58)	7t Do you ever feel left out? Other? (n=92)	9% (n=8)	91% (n=84)

RIM INTERVIEW RESPONSES
EXTRA-CURRICULAR ACTIVITIES

SECONDARY	YES	NO
8a Do you have a chance to take part in the extra curricular or after-school activities that you would like? (n=93)	81% (n=75)	19% (n=18)
8d When you do take part in an activity, do you think you are treated differently because of your vision/hearing problem? (n=80)	9% (n=7)	91% (n=73)
8f Are there any activities your school does not have that you would like to have? (n=89)	34% (n=30)	66% (n=59)

RIM INTERVIEW RESPONSES
INTRAPERSONAL REFLECTIONS

ELEMENTARY	YES	NO	SECONDARY	YES	NO
6b Are there some good things about having a vision/hearing problem? (n=56)	29% (n=16)	71% (n=40)	9b Are there some advantages you have in school because of your vision/hearing problem? (n=87)	36% (n=31)	64% (n=56)

RIM INTERVIEW RESPONSES
DIFFICULTIES IN SCHOOL

EMENTARY	A	B	C	SECONDARY	A	B	C	D
a ow big a problem is your vision/ hearing handicap in school? n=59) - Big problem - Sometimes a problem - Little problem	14% (n=8)	34% (n=20)	53% (n=31)	10 Overall, how much of a problem does your vision/ hearing handicap create for you in school? (n=91) A - Often a problem B - Sometimes a problem C - Once in a while a problem D - Never a problem	13% (n=12)	30% (n=27)	48% (n=44)	9% (n=8)

RIM INTERVIEW RESPONSES
PERCEPTIONS OF FRIENDS' ATTITUDES

ELEMENTARY	YES	NO
9b When you play with (friend's names) do you feel left out? (n=58)	10% (n=6)	90% (n=52)
9c (If student answered "No" to question 9b) Do you ever feel left out because you can't see/hear what is going on? (n=52)	10% (n=5)	90% (n=47)
9e Do (friend's names) ever do mean things to you because of your vision/hearing problem? (n=58)	12% (n=7)	88% (n=51)
9f (If student answered "No" to question 9e) Do they ever tease you or call you names or anything like that? (n=52)	10% (n=5)	90% (n=47)
9h Do your friends do anything that is especially nice or helpful when you can't see/hear? (n=59)	64% (n=38)	36% (n=21)
9i (If student answered "No" to question 9h) Do they ever tell you what is happening when you can't see/hear? (n=21)	29% (n=6)	71% (n=15)

RIM INTERVIEW RESPONSES
PERCEPTIONS OF CLASSMATES' ATTITUDES

ELEMENTARY	YES	NO
10a When you work or play with other kids in your school do you ever feel left out? (n=58)	31% (n=18)	69% (n=40)
10b (If student answered "No" to question 10a) Do you ever feel left out because you can't see/hear what's going on? (n=38)	11% (n=4)	89% (n=34)
10d Do other kids in school ever do mean things to you because of your vision/hearing problem? (n=58)	41% (n=24)	59% (n=34)
10e (If student answered "No" to question 10d) Do they ever tease you or call you names or anything like that? (n=35)	17% (n=6)	83% (n=29)
10g Do other kids in school do anything that is especially nice or helpful when you can't see/hear? (n=58)	60% (n=35)	40% (n=23)
10h (If student answered "No" to question 10g) Do they ever tell you what is happening when you can't see/hear? (n=21)	43% (n=9)	57% (n=12)

RIM INTERVIEW RESPONSES
PERCEPTIONS OF CLASSMATES' ATTITUDES
PERCEPTIONS OF FRIENDS' ATTITUDES
DATING

	SECONDARY	YES	NO
	11a Do you think that having a vision/hearing problem makes a difference in how your classmates think of you? (n=88)	42% (n=37)	58% (n=51)
	11c Do you think it makes a difference in how you get along with your friends? (n=89)	25% (n=22)	75% (n=67)
	12c Do you think your vision/hearing problem affects your dating or will in the future? (n=82)	33% (n=27)	67% (n=55)

RIM INTERVIEW RESPONSES
UNDERSTANDING VISION/HEARING PROBLEMS

ELEMENTARY	YES	NO	SECONDARY	YES	NO
12a Who know you have a vision/hearing problem? Teachers? (n=61)	97% (n=59)	3% (n=2)	15a Who knows you have a vision/hearing problem? Teachers? (n=94)	98% (n=92)	2% (n=2)
12b Who knows you have a vision/hearing problem? Classmates? (n=59)	86% (n=51)	14% (n=8)	15b Who knows you have a vision/hearing problem? Classmates? (n=93)	88% (n=82)	12% (n=11)
12c Who knows you have a vision/hearing problem? Friends? (n=60)	95% (n=57)	5% (n=3)	15c Who knows you have a vision/hearing problem? Friends? (n=94)	94% (n=88)	6% (n=6)
12e Who knows you have a vision/hearing problem? Other? (n=59)	36% (n=21)	64% (n=38)	15d Who knows you have a vision/hearing problem? Other? (n=82)	39% (n=32)	61% (n=50)
12A Do you tell teachers (about your vision/hearing problem)? (n=57)	32% (n=18)	68% (n=39)			
12B Do you tell classmates (about your vision/hearing problem)? (n=51)	51% (n=26)	49% (n=25)			
12C Do you tell friends (about your vision/hearing problem)? (n=57)	60% (n=34)	40% (n=23)			

RIM INTERVIEW RESPONSES
UNDERSTANDING VISION/HEARING PROBLEMS

ELEMENTARY	YES	NO
12E Do you tell other(s) (about your vision/ hearing problem)? (n=19)	21% (n=4)	79% (n=15)
12d Do people sometimes have silly or wrong ideas about your vision/hearing problem? (n=58)	40% (n=23)	60% (n=35)

RIM INTERVIEW RESPONSES
MAINSTREAMING

ELEMENTARY	YES	NO	SECONDARY	YES	NO
8a Have you heard the word "mainstream? (n=62)	16% (n=10)	84% (n=52)	19a Have you heard the word "mainstreaming"? (n=91)	34% (n=31)	66% (n=6(
8e Do you like going to school with kids who see/hear okay? (n=60)	95% (n=57)	5% (n=3)			
8f Are there any other kids in your school who have vision/hearing problems? (n=56)	57% (n=32)	43% (n=24)			
8g Do you like having kids in your school who have vision/hearing problems? (n=37)	81% (n=30)	19% (n=7)			
8i Do you know the kids in your school who have vision/hearing problems? (n=31)	93% (n=29)	7% (n=2)			
10l Do you have friends with vision/hearing problems? (n=58)	43% (n=25)	57% (n=33)	19f Do you have friends with vision/hearing problems? (n=87)	68% (n=59)	32% (n=2
10n Would you like to meet more kids with vision/hearing problems? (n=46)	57% (n=26)	43% (n=20)	19h Would you like to meet others with vision/hearing problems? (n=22)	59% (n=13)	41% (n=9

RIM INTERVIEW RESPONSES
MAINSTREAMING

ELEMENTARY	A	B	C
10m Who do you like to play with most of the time? (n=18) A - Friends who do have vision/ hearing problems. B - Friends who do not have vision/ hearing problems. C - Both	0% (n=0)	17% (n=3)	83% (n=15)

SECONDARY	A	B	C
19c Which kind of school would you like best? (n=91) A - Going to school with students who all have vision/hearing problems. B - Going to a regular public school but having special classes with other vision/hearing students. C - Going to a public school and being in regular classes.	0% (n=0)	26% (n=24)	74% (n=67)
19g With whom are you most comfortable? (n=58) A - Friends who do have vision/ hearing problems. B - Friends who do not have vision/ hearing problems. C - Both	24% (n=14)	19% (n=11)	57% (n=33)

RIM INTERVIEW RESPONSES - Statistically Significant Group Differences ($p \leq .05$)
VISION IMPAIRED VERSUS HEARING IMPAIRED STUDENTS - ELEMENTARY

	VISION		HEARING	
	YES	NO	YES	NO
3a Is your desk in a special place so you can see or hear better?	26% (n=5)	74% (n=14)	64% (n=29)	36% (n=16)
12d Do people sometimes have silly or wrong ideas about your vision/hearing problem?	63% (n=12)	37% (n=7)	28% (n=11)	72% (n=28)

RIM INTERVIEW RESPONSES - Statistically Significant Group Differences ($p \leq .05$)
VISION IMPAIRED VERSUS HEARING IMPAIRED STUDENTS - SECONDARY

	VISION		HEARING	
	YES	NO	YES	NO
1b Do you take any different or special classes because you have a vision/hearing problem?	18% (n=7)	82% (n=32)	53% (n=28)	47% (n=25)
3a Do you sit in a special place in class so you can see or hear better?	45% (n=18)	55% (n=22)	71% (n=36)	29% (n=15)
6e Do you get help from a notetaker?	3% (n=1)	98% (n=39)	29% (n=15)	71% (n=37)
6f Do you get help from a student helper?	18% (n=7)	83% (n=33)	39% (n=20)	62% (n=32)
7q Do you ever feel left out in gym?	32% (n=12)	68% (n=26)	12% (n=6)	88% (n=44)
11a Do you think that having a vision/hearing problem makes a difference in how your classmates think about you?	58% (n=22)	42% (n=16)	30% (n=15)	70% (n=35)
12c Do you think your vision/hearing problem affects your dating or will in the future?	49% (n=16)	52% (n=17)	22% (n=11)	78% (n=38)

RIM INTERVIEW RESPONSES - Statistically Significant Group Differences ($p \leq .05$)
VISION IMPAIRED VERSUS HEARING IMPAIRED STUDENTS - SECONDARY

	VISION			HEARING		
	A	B	C	A	B	C
Dc ich would you like best?	0% (n=0)	13% (n=5	88% (n=35)	0% (n=0)	37% (n=19)	63% (n=32)
- Going to school with students who all have vision/hearing problems)						
- Going to a regular public school, but having special classes with other vision/hearing students						
- Going to a public school and being in regular classes						

RIM INTERVIEW RESPONSES - Statistically Significant Group Differences ($p \leq .05$)
MALE VERSUS FEMALE SENSORIALLY IMPAIRED STUDENTS - SECONDARY

	MALE		FEMALE	
	YES	NO	YES	NO
6f Do you get help from a student helper?	20% (n=11)	80% (n=43)	43% (n=16)	56% (n=21)
7p Do you ever feel left out at lunch?	9% (n=5)	91% (n=49)	28% (n=10)	72% (n=26)
8a Do you have a chance to take part in the extra-curricular or after school activities that you would like?	93% (n=50)	7% (n=4)	66% (n=25)	34% (n=13)

RIM INTERVIEW RESPONSES - Statistically Significant Group Differences ($p \leq .05$)
MALE VERSUS FEMALE SENSORIALLY IMPAIRED STUDENTS - SECONDARY

	MALE			FEMALE		
	A	B	C	A	B	C
19c Which would you like best?	0% (n=0)	13% (n=7)	87% (n=47)	0% (n=0)	47% (n=17)	53% (n=19)
A - Going to school with students who all have a vision/hearing problem						
B - Going to a regular public school, but having special classes with other vision/hearing problems						
C - Going to a public school and being in regular class						

Responses of Hearing Impaired Students

The following pages present the responses of hearing impaired students to the quantifiable questions in the interview, separated into "station" and "itinerant" categories. This has been done for both the elementary and the secondary interview forms. In this section "Station" refers to students attending school at a station site and receiving service at level 4 (Direct-Resource). "Itinerant" students are those attending school at a non-station site and receiving service at levels 1, 2, 3, or 4; they also are students attending school at a station site but receiving service at levels 1, 2, or 3.

The total number of hearing impaired students interviewed was 104. Of the 44 hearing impaired students in elementary school interviewed, 12 are served in stations and 32 are served itinerantly. Of the 57 secondary students interviewed, 19 are served in stations and 38 are served itinerantly. The interviews of three students are not included as their answers indicate that they are of questionable realiability. The total number of students answering any question varies; the percentages are calculated based on the total number of answers per question.

Statistically significant group differences are indicated.

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
SCHOOL CLASSES

ELEMENTARY		YES	NO
1b Is there anything you want to do in school, but they don't let you because of your vision/hearing problem?	Station (n=12)	25% (n=3)	75% (n=9)
**	Itinerant (n=28)	100% (n=28)	0% (n=0)

**Significant difference, p≤.05

SECONDARY		YES	NO
1b Do you take any different or special classes because you have a vision/hearing problem?.	Station (n=18)	89% (n=16)	11% (n=2)
**	Itinerant (n=38)	39% (n=15)	61% (n=23)
1d Are there any classes you'd like to take but aren't allowed to because you're vision/ hearing impaired?	Station (n=17)	12% (n=2)	88% (n=15)
	Itinerant (n=37)	16% (n=6)	84% (n=31)

**Significant difference, p≤.05

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
MATERIALS AND AIDS

ELEMENTARY		YES	NO
2h Do you use a hearing aid?	Station (n=12)	100% (n=12)	0% (n=0)
	Itinerant (n=32)	91% (n=29)	9% (n=3)
2i Do you use a Phonic Ear? **	Station (n=12)	83% (n=10)	17% (n=2)
	Itinerant (n=32)	34% (n=11)	66% (n=21)

SECONDARY		YES	NO
2h Do you need a hearing aid?	Station (n=18)	83% (n=15)	17% (n=3)
	Itinerant (n=38)	80% (n=31)	20% (n=7)
2H Do you use a hearing aid?	Station (n=19)	79% (n=15)	21% (n=4)
	Itinerant (n=38)	74% (n=28)	26% (n=10)
2i Do you need a Phonic Ear?	Station (n=18)	22% (n=4)	78% (n=14)
	Itinerant (n=38)	8% (n=3)	92% (n=35)
2I Do you use a Phonic Ear?	Station (n=19)	21% (n=4)	79% (n=15)
	Itinerant (n=37)	11% (n=4)	89% (n=33)
2j Do you need any other aid?	Station (n=19)	5% (n=1)	95% (n=18)
	Itinerant (n=38)	0% (n=0)	100% (n=38)

**Significant difference, $p \leq .05$

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
MATERIALS AND AIDS

ELEMENTARY		YES	NO
2j Do you use any other aid?	Station (n=12)	0% (n=0)	100% (n=12)
	Itinerant (n=32)	6% (n=2)	94% (n=30)

SECONDARY		YES	NO
2J Do you use any other aid?	Station (n=19)	5% (n=1)	95% (n=18)
	Itinerant (n=37)	0% (n=0)	100% (n=37)

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
MATERIALS AND AIDS

ELEMENTARY		LIKE	DIS-LIKE	NEUT.
2H How do you feel about using a hearing aid?	Station (n=12)	42% (n=5)	33% (n=4)	25% (n=3)
	Itinerant (n=27)	33% (n=9)	33% (n=9)	33% (n=9)
2I How do you feel about using a Phonic Ear?	Station (n=10)	50% (n=5)	50% (n=5)	0% (n=0)
	Itinerant (n=11)	36% (n=4)	55% (n=6)	9% (n=1)
2J How do you feel about using any other aid?	Station (n=1)	100% (n=1)	0% (n=0)	0% (n=0)
	Itinerant (n=3)	67% (n=2)	33% (n=1)	0% (n=0)

SECONDARY		LIKE	DIS-LIKE	NEUT.
2x How do you feel about using a hearing aid? **	Station (n=14)	79% (n=11)	14% (n=2)	7% (n=1)
	Itinerant (n=27)	48% (n=13)	22% (n=6)	30% (n=8)
2y How do you feel about using a Phonic Ear?	Station (n=4)	50% (n=2)	50% (n=2)	0% (n=0)
	Itinerant (n=3)	33% (n=1)	33% (n=1)	33% (n=1)
2z How do you feel about using any other aid?	Station (n=1)	100% (n=1)	0% (n=0)	0% (n=0)
	Itinerant (n=0)	0% (n=0)	0% (n=0)	0% (n=0)

**Significant difference, p≤.05

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
MATERIALS AND AIDS

		NOT AVAIL.	DIS-LIKE
SECONDARY			
The following questions apply only to students who stated they need a material or aid but do not use the material or aid.			
ZX Why don't you use a hearing aid?	Station (n=2)	50% (n=1)	50% (n=1)
	Itinerant (n=1)	0% (n=0)	100% (n=1)
ZY Why don't you use a Phonic Ear?	Station (n=1)	0% (n=0)	100% (n=1)
	Itinerant (n=0)	0% (n=0)	0% (n=0)
ZZ Why don't you use any other aid?	Station (n=0)	0% (n=0)	0% (n=0)
	Itinerant (n=0)	0% (n=0)	0% (n=0)

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
SEATING

ELEMENTARY		YES	NO
1a Is your desk in a special place so you can see or hear better?	Station (n=12)	83% (n=10)	17% (n=2)
	Itinerant (n=32)	59% (n=19)	41% (n=13)
The following questions apply only to students who stated they sit in a special place.			
1c Who told you to sit in a special place? You? **	Station (n=10)	0% (n=0)	100% (n=10)
	Itinerant (n=19)	26% (n=5)	74% (n=14)
1p Who told you to sit in a special place? Parent?	Station (n=10)	0% (n=0)	100% (n=10)
	Itinerant (n=19)	11% (n=2)	89% (n=17)
1q Who told you to sit in a special place? Classroom teacher?	Station (n=10)	80% (n=8)	20% (n=2)
	Itinerant (n=19)	47% (n=9)	53% (n=10)

**Significant difference, p≤.05

SECONDARY		YES	NO
3a Do you sit in a special place in class so you can see or hear better? **	Station (n=17)	94% (n=16)	6% (n=1)
	Itinerant (n=38)	61% (n=23)	39% (n=15)
The following questions apply only to students who stated they sit in a special place.			
3d Who suggested that you have a special seat? You?	Station (n=16)	50% (n=8)	50% (n=8)
	Itinerant (n=23)	70% (n=16)	30% (n=7)
3h Who suggested that you have a special seat? Parent? **	Station (n=16)	0% (n=0)	100% (n=16)
	Itinerant (n=23)	22% (n=5)	78% (n=18)
3i Who suggested that you have a special seat? Classroom teacher?	Station (n=16)	31% (n=5)	69% (n=11)
	Itinerant (n=23)	39% (n=9)	61% (n=14)

**Significant difference, p≤.05

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
SEATING

ELEMENTARY		YES	NO
3e Who told you to sit in a special place? Vision/hearing teacher?	Station (n=10)	30% (n=3)	70% (n=7)
	Itinerant (n=19)	11% (n=2)	89% (n=17)
3a Who told you to sit in a special place? Other?	Station (n=10)	0% (n=0)	100% (n=10)
	Itinerant (n=19)	11% (n=2)	89% (n=17)

SECONDARY		YES	NO
3j Who suggested that you have a special seat? Vision/hearing teacher?	Station (n=16)	0% (n=0)	100% (n=16)
	Itinerant (n=23)	9% (n=2)	91% (n=21)
3k Who suggested that you have a special seat? Other?	Station (n=16)	12% (n=2)	88% (n=14)
	Itinerant (n=23)	3% (n=1)	97% (n=22)

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
SEATING

ELEMENTARY		YES	NO
3t Who told you to sit in a special place? Don't know?	Station (n=10)	0% (n=0)	100% (n=10)
	Itinerant (n=19)	0% (n=0)	100% (n=19)
3d Can you see/hear better in your special seat?	Station (n=10)	100% (n=10)	0% (n=0)
	Itinerant (n=18)	100% (n=18)	0% (n=0)
3f Is there anything bad about sitting in a special place?	Station (n=9)	56% (n=5)	44% (n=4)
**	Itinerant (n=17)	12% (n=2)	88% (n=15)
The following question applies only to students who stated they do not sit in a special place.			
3b Do you want your desk in a special place?	Station (n=2)	100% (n=2)	0% (n=0)
	Itinerant (n=13)	92% (n=12)	8% (n=1)

SECONDARY		YES	NO
3l Who suggested that you have a special seat?	Station (n=16)	0% (n=0)	100% (n=16)
	Itinerant (n=23)	0% (n=0)	100% (n=23)
3e Do you think your special seating helps you?	Station (n=14)	93% (n=13)	7% (n=1)
	Itinerant (n=23)	87% (n=20)	13% (n=3)
3g Do you think there are any disadvantages to sitting in a special seat?	Station (n=15)	20% (n=3)	80% (n=12)
	Itinerant (n=23)	30% (n=7)	70% (n=16)

**Significant difference, $p \leq .05$

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
SEATING

	SECONDARY		A	B	C
	The following question applies only to students who stated they sit in a special place.				
	3c In how many classes do you sit in a special place?	Station (n=16)	25% (n=4)	25% (n=4)	50% (n=8)
	**	Itinerant (n=37)	57% (n=21)	38% (n=14)	5% (n=2)
	A - In all classes				
	B - In most classes				
	C - In some classes				
	**Significant difference, p≤.05				

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
GETTING ALONG WITH TEACHERS
HELP FROM TEACHERS

SECONDARY	YES	NO
4a Do you think having a vision/hearing problem makes a difference in how you get along with teachers?		
Station (n=16)	56% (n=9)	44% (n=7)
Itinerant (n=37)	32% (n=12)	68% (n=25)
5a Do teachers try to give you help in school because of your vision/hearing problem?		
Station (n=18) **	100% (n=18)	0% (n=0)
Itinerant (n=38)	63% (n=24)	37% (n=14)
5b Would you like more help from teachers in school?		
Station (n=4)	25% (n=1)	75% (n=3)
Itinerant (n=9)	33% (n=3)	67% (n=6)

**Significant difference, $p \leq .05$

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
GETTING ALONG WITH TEACHERS
HELP FROM TEACHERS

SECONDARY	A	B	C
The following question applies only to students who stated that having a vision/hearing problem makes a difference in getting along with teachers.			
4b How often does it make a difference?			
Station (n=8)	0% (n=0)	13% (n=1)	88% (n=7)
Itinerant (n=12)	0% (n=0)	25% (n=3)	75% (n=9)
A - All of the time			
B - Most of the time			
C - Some of the time			
The following question applies only to students who stated that teachers give them help because of their vision/hearing problem.			
5d How often do teachers give you help?			
Station (n=14)	0% (n=0)	14% (n=2)	86% (n=12)
Itinerant (n=25)	4% (n=1)	16% (n=4)	80% (n=20)
A - All of the time			
B - Most of the time			
C - Some of the time			

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
HELP FROM OTHER PEOPLE

SECONDARY		YES	NO
6a Do you get help from a vision/hearing teacher?			
	Station (n=19)	95% (n=18)	5% (n=1)
**	Itinerant (n=38)	63% (n=24)	37% (n=14)
6b Do you get help from a teacher aide?			
	Station (n=16)	37% (n=6)	63% (n=10)
**	Itinerant (n=38)	5% (n=2)	95% (n=36)
6c Do you get help from a school nurse?			
	Station (n=19)	16% (n=3)	84% (n=16)
	Itinerant (n=38)	18% (n=7)	82% (n=31)
6d Do you get help from a counselor?			
	Station (n=17)	29% (n=5)	71% (n=12)
	Itinerant (n=38)	50% (n=19)	50% (n=19)

**Significant difference, $p \leq .05$

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
HELP FROM OTHER PEOPLE

SECONDARY		YES	NO
6e Do you get help from a notetaker?			
**	Station (n=17)	59% (n=10)	41% (n=7)
	Itinerant (n=38)	16% (n=6)	84% (n=32)
6f Do you get help from a student helper?			
**	Station (n=17)	71% (n=12)	29% (n=5)
	Itinerant (n=38)	21% (n=8)	79% (n=30)
6g Do you get help from friends?			
	Station (n=18)	66% (n=12)	34% (n=6)
	Itinerant (n=38)	68% (n=26)	32% (n=12)
6h Do you get help from a mobility teacher?			
	Station (n=0)	0% (n=0)	0% (n=0)
	Itinerant (n=0)	0% (n=0)	0% (n=0)

** Significant difference, $p \leq .05$

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
HELP FROM OTHER PEOPLE

SECONDARY		YES	NO
6i Do you get help from an interpreter?			
**	Station (n=19)	95% (n=18)	5% (n=1)
	Itinerant (n=37)	3% (n=1)	97% (n=36)
6j Do you get help from a speech teacher?			
	Station (n=19)	95% (n=18)	5% (n=1)
**	Itinerant (n=38)	55% (n=21)	45% (n=17)
6k Do you get help from any other person?			
	Station (n=17)	18% (n=3)	82% (n=14)
	Itinerant (n=38)	18% (n=7)	82% (n=31)

**Significant difference, $p \leq .05$

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
FEELING SINGLED OUT/LEFT OUT

ELEMENTARY		YES	NO
5a Do you ever feel lonely or left out in the classroom?			
	Station (n=12)	75% (n=9)	25% (n=3)
**	Itinerant (n=31)	35% (n=11)	65% (n=20)
5b Do you ever feel lonely or left out at lunch?			
	Station (n=12)	25% (n=3)	75% (n=9)
	Itinerant (n=31)	13% (n=4)	87% (n=27)
5c Do you ever feel lonely or left out in gym?			
	Station (n=12)	33% (n=4)	67% (n=8)
	Itinerant (n=31)	10% (n=3)	90% (n=28)
5d Do you ever feel lonely or left out at recess			
	Station (n=12)	42% (n=5)	58% (n=7)
	Itinerant (n=31)	32% (n=10)	68% (n=21)

SECONDARY		YES	NO
7o Do you ever feel lonely or left out in the classroom?			
	Station (n=17)	29% (n=5)	71% (n=12)
	Itinerant (n=38)	42% (n=16)	58% (n=22)
7p Do you ever feel lonely or left out at lunch?			
	Station (n=16)	18% (n=3)	82% (n=13)
	Itinerant (n=38)	18% (n=7)	82% (n=31)
7q Do you ever feel lonely or left out in gym?			
	Station (n=15)	13% (n=2)	87% (n=13)
	Itinerant (n=38)	11% (n=4)	89% (n=34)

**Significant difference, $p \leq .05$

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
FEELING SINGLED OUT/LEFT OUT

ELEMENTARY		YES	NO
5e Do you ever feel lonely or left out in the halls?			
	Station (n=12)	42% (n=5)	58% (n=7)
**	Itinerant (n=31)	13% (n=4)	87% (n=27)
5f Do you ever feel lonely or left out before or after school?			
	Station (n=12)	17% (n=2)	83% (n=10)
	Itinerant (n=29)	14% (n=4)	86% (n=25)
5g Do you ever feel lonely or left out at any time?			
	Station (n=12)	8% (n=1)	92% (n=11)
	Itinerant (n=31)	10% (n=3)	90% (n=28)

SECONDARY		YES	NO
7r Do you ever feel left out in the halls?			
	Station (n=17)	18% (n=3)	82% (n=14)
	Itinerant (n=38)	16% (n=6)	84% (n=32)

**Significant difference, $p \leq .05$

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
FEELING SINGLED OUT/LEFT OUT

	SECONDARY	YES	NO
7s Do you ever feel left out before or after school activities?	Station (n=17)	6% (n=1)	94% (n=16)
	Itinerant (n=38)	8% (n=3)	92% (n=35)
7t Do you ever feel left out? Other?	Station (n=17)	0% (n=0)	100% (n=17)
	Itinerant (n=38)	8% (n=3)	92% (n=35)
7a Do you ever receive extra attention in the classroom?	Station (n=18)	67% (n=12)	33% (n=6)
	Itinerant (n=38)	42% (n=16)	58% (n=22)
7b Do you ever receive extra attention at lunch?	Station (n=19) **	32% (n=6)	68% (n=13)
	Itinerant (n=38)	5% (n=2)	95% (n=36)

**Significant difference, $p \leq .05$

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
FEELING SINGLED OUT/LEFT OUT

SECONDARY		YES	NO
7c Do you ever receive attention in gym?	Station (n=17)	18% (n=3)	82% (n=14)
	Itinerant (n=38)	18% (n=7)	82% (n=31)
7d Do you ever receive extra attention in the halls?	Station (n=19)	16% (n=3)	84% (n=16)
	Itinerant (n=38)	11% (n=4)	89% (n=34)
7e Do you ever receive extra attention before or after school?	Station (n=18)	17% (n=3)	83% (n=15)
	Itinerant (n=38)	18% (n=7)	82% (n=28)
7f Do you ever receive extra attention any other times?	Station (n=17)	5% (n=1)	95% (n=16)
	Itinerant (n=3)	0% (n=0)	100% (n=3)

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
FEELING SINGLED OUT/LEFT OUT

SECONDARY	LIKE	DIS-LIKE	NEUT.
The following questions apply only to students who stated they receive extra attention.			
7A How do you feel about extra attention in the classroom?			
Station (n=10) **	20% (n=2)	60% (n=6)	20% (n=2)
Itinerant (n=14)	57% (n=8)	14% (n=2)	29% (n=4)
7B How do you feel about extra attention at lunch?			
Station (n=4)	0% (n=0)	75% (n=3)	25% (n=1)
Itinerant (n=2)	100% (n=2)	0% (n=0)	0% (n=0)
7C How do you feel about extra attention in gym?			
Station (n=3)	33% (n=1)	67% (n=2)	0% (n=0)
Itinerant (n=7)	71% (n=5)	0% (n=0)	29% (n=2)
7D How do you feel about extra attention in the halls?			
Station (n=4)	0% (n=0)	75% (n=3)	25% (n=1)
Itinerant (n=4)	75% (n=3)	25% (n=1)	0% (n=0)

**Significant difference, $p \leq .05$

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
FEELING SINGLED OUT/LEFT OUT

SECONDARY	LIKE	DIS-LIKE	NEUT.
7E How do you feel about extra attention before or after school?			
Station (n=2)	0% (n=0)	50% (n=1)	50% (n=1)
Itinerant (n=7)	57% (n=4)	14% (n=1)	29% (n=2)
7F How do you feel about extra attention at ... other?			
Station (n=0)	0% (n=0)	0% (n=0)	0% (n=0)
Itinerant (n=0)	0% (n=0)	0% (n=0)	0% (n=0)

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
EXTRA-CURRICULAR ACTIVITIES

	SECONDARY	YES	NO
8a Do you have a chance to take part in the extra-curricular or after-school activities that you would like?			
**	Station (n=19)	53% (n=10)	47% (n=9)
	Itinerant (n=37)	91% (n=34)	9% (n=3)
8d When you do take part in an activity, do you think you are treated differently because of your vision/hearing problem?			
	Station (n=12)	8% (n=1)	92% (n=11)
	Itinerant (n=33)	15% (n=5)	85% (n=28)
8f Are there any activities your school does not have that you would like to have?			
	Station (n=16)	19% (n=3)	81% (n=13)
	Itinerant (n=37)	37% (n=14)	63% (n=23)

**Significant difference, $p \leq .05$

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
DIFFICULTIES IN SCHOOL

ELEMENTARY	A	B	C
7a How big a problem is your vision/ hearing handicap in school?			
Station (n=11)	18% (n=2)	27% (n=3)	55% (n=6)
Itinerant (n=30)	10% (n=3)	37% (n=11)	53% (n=16)

SECONDARY	A	B	C	D
10 Overall, how much of a problem does your vision/hearing handicap create for you in school?				
Station (n=17) **	29% (n=5)	12% (n=2)	53% (n=9)	6% (n=1)
Itinerant (n=38)	5% (n=2)	32% (n=12)	47% (n=18)	16% (n=6)

A - Often a problem

B - Sometimes a problem

C - Once in a while a problem

D - Never a problem

**Significant difference, $p \leq .05$

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
PERCEPTIONS OF CLASSMATES' ATTITUDES

LEMENTARY		YES	NO
10a When you work or play with other kids in your school do you ever feel left out?			
	Station (n=11)	36% (n=4)	64% (n=7)
	Itinerant (n=28)	29% (n=8)	71% (n=20)
10b (If student answered "No" to question 10a) Do you ever feel left out because you can't see/hear what's going on?			
	Station (n=6)	0% (n=0)	100% (n=6)
	Itinerant (n=19)	16% (n=3)	84% (n=16)
10d Do other kids ever do mean things to you because of your vision/hearing problem?			
**	Station (n=11)	82% (n=9)	18% (n=2)
	Itinerant (n=28)	32% (n=9)	68% (n=19)
10e (If student answered "No" to question 10d) Do they ever tease you or call you names or anything like that?			
	Station (n=3)	0% (n=0)	100% (n=3)
	Itinerant (n=19)	11% (n=2)	89% (n=17)

**Significant difference, $p \leq .05$

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
PERCEPTIONS OF CLASSMATES' ATTITUDES

LEMENTARY		YES	NO
10g Do other kids in school do anything that is especially nice or helpful when you can't see/hear?	Station (n=10)	80% (n=8)	20% (n=2)
	Itinerant (n=29)	55% (n=16)	45% (n=13)
10h (If student answered "No" to question 10g) Do they ever tell you what is happening when you can't see/hear?	Station (n=1)	100% (n=1)	0% (n=0)
	Itinerant (n=11)	45% (n=5)	55% (n=6)

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
PERCEPTIONS OF FRIENDS' ATTITUDES

LEMENTARY	YES	NO
9b Vhen you play with (friend's names) do you feel left out?		
Station (n=10)	30% (n=3)	70% (n=7)
Itinerant (n=28)	11% (n=3)	89% (n=25)
9c (If students answered "No" to question 9b) Do you ever feel left out because you can't see/hear what is going on?		
Station (n=8)	13% (n=1)	88% (n=7)
Itinerant (n=25)	8% (n=2)	92% (n=23)
9e)o (friend's names) ever do mean things to rou because of your vision/hearing problem?		
Station (n=11)	18% (n=2)	82% (n=9)
Itinerant (n=28)	14% (n=4)	86% (n=24)
)f (If students answered "No" to question 9e))o they ever tease you or call you names or anything like that?		
Station (n=9)	22% (n=2)	78% (n=7)
Itinerant (n=24)	8% (n=2)	92% (n=22)

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
PERCEPTIONS OF FRIENDS' ATTITUDES

LEMENTARY	YES	NO
9h Do your friends do anything that is especially nice or helpful when you can't see/hear?		
Station (n=11)	91% (n=10)	9% (n=1)
Itinerant (n=19)	66% (n=19)	34% (n=10)
9i (If student answered "No" to question 9h) Do they ever tell you what is happening when you can't see/hear?		
Station (n=1)	0% (n=0)	100% (n=1)
Itinerant (n=11)	27% (n=3)	73% (n=8)

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
PERCEPTIONS OF CLASSMATES' ATTITUDES
PERCEPTIONS OF FRIENDS' ATTITUDES

			SECONDARY	YES	NO
			11a Do you think that having a vision/hearing problem makes a difference in how your classmates think of you?		
			Station (n=16)	37% (n=6)	63% (n=10)
			Itinerant (n=37)	27% (n=10)	73% (n=27)
			11c Do you think it makes a difference in how you get along with your friends?		
			Station (n=16)	50% (n=8)	50% (n=8)
		**	Itinerant (n=38)	18% (n=7)	82% (n=31)
			12o Do you think your vision/hearing problem affects your dating or will in the future?		
			Station (n=17)	41% (n=7)	59% (n=10)
		**	Itinerant (n=35)	11% (n=4)	89% (n=31)

**Significant difference, $p \leq .05$

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
UNDERSTANDING VISION/HEARING PROBLEMS

ELEMENTARY		YES	NO
12a Who knows you have a vision/hearing problem? Teachers?	Station (n=11)	100% (n=11)	0% (n=0)
	Itinerant (n=28)	96% (n=27)	4% (n=1)
12b Who knows you have a vision/hearing problem? Classmates?	Station (n=11)	82% (n=9)	18% (n=2)
	Itinerant (n=26)	96% (n=25)	4% (n=1)
12c Who knows you have a vision/hearing problem? Friends?	Station (n=11)	100% (n=11)	0% (n=0)
	Itinerant (n=27)	100% (n=27)	0% (n=0)
12e Who knows you have a vision/hearing problem? Other?	Station (n=11)	36% (n=4)	64% (n=7)
	Itinerant (n=27)	22% (n=6)	78% (n=21)

SECONDARY		YES	NO
15a Who knows you have a vision/hearing problem? Teachers?	Station (n=19)	100% (n=19)	0% (n=0)
	Itinerant (n=38)	92% (n=35)	8% (n=3)
15b Who knows you have a vision/hearing problem? Classmates?	Station (n=17)	100% (n=17)	0% (n=0)
	Itinerant (n=38)	87% (n=33)	13% (n=5)
15c Who knows you have a vision/hearing problem? Friends?	Station (n=18)	100% (n=18)	0% (n=0)
	Itinerant (n=38)	95% (n=36)	5% (n=2)
15d Who knows you have a vision/hearing problem? Other?	Station (n=16)	25% (n=4)	75% (n=12)
	Itinerant (n=38)	42% (n=12)	68% (n=26)

RIM INTERVIEW, HEARING IMPAIRED STUDENTS
UNDERSTANDING VISION/HEARING PROBLEMS

ELEMENTARY		YES	NO
12A Do you tell teachers (about your vision/ hearing problem)?	Station (n=9)	33% (n=3)	67% (n=6)
	Itinerant (n=27)	37% (n=10)	63% (n=17)
12B Do you tell classmates (about your vision/ hearing problem)?	Station (n=8)	13% (n=1)	88% (n=7)
	Itinerant (n=26)	65% (n=17)	35% (n=9)
12C Do you tell friends (about your vision/ hearing problem)?	Station (n=10)	70% (n=7)	30% (n=3)
	Itinerant (n=28)	71% (n=20)	29% (n=8)

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
UNDERSTANDING VISION/HEARING PROBLEMS

ELEMENTARY	YES	NO
12E Do you tell other(s) (about your vision/ hearing problem)?		
Station (n=4)	25% (n=1)	75% (n=3)
Itinerant (n=5)	40% (n=2)	60% (n=3)

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
MISCONCEPTIONS ABOUT VISION/HEARING PROBLEMS

ELEMENTARY	YES	NO
12d Do people sometimes have silly or wrong ideas about your vision/hearing problem?		
Station (n=11)	45% (n=5)	55% (n=6)
Itinerant (n=27)	22% (n=6)	78% (n=21)

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
INTRAPERSONAL REFLECTIONS

ELEMENTARY		YES	NO
9b Are there some good things about having a vision/hearing problem?			
	Station (n=9)	11% (n=1)	89% (n=8)
	Itinerant (n=29)	24% (n=7)	76% (n=22)

SECONDARY		YES	NO
9b Are there some advantages you have in school because of your vision/hearing problem?			
	Station (n=14)	57% (n=8)	43% (n=6)
	Itinerant (n=35)	34% (n=12)	66% (n=23)

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
MAINSTREAMING

ELEMENTARY		YES	NO
8a Have you heard the word "mainstream"?			
	Station (n=1)	0% (n=0)	100% (n=1)
	Itinerant (n=30)	23% (n=7)	77% (n=23)
8e Do you like going to school with kids who see/hear okay?			
	Station (n=11)	100% (n=11)	0% (n=0)
	Itinerant (n=29)	97% (n=28)	3% (n=1)
8f Are there any kids in your school who have vision/hearing problems?			
**	Station (n=11)	100% (n=11)	0% (n=0)
	Itinerant (n=26)	35% (n=9)	65% (n=17)
8g Do you like having kids in your school who have vision/hearing problems?			
	Station (n=11)	91% (n=10)	9% (n=1)
	Itinerant (n=12)	75% (n=9)	25% (n=3)

SECONDARY	YES	NO

**Significant difference, $p \leq .05$

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
MAINSTREAMING

ELEMENTARY	YES	NO
8i Do you know the kids in your school who have vision/hearing problems?		
Station (n=11)	100% (n=11)	0% (n=0)
Itinerant (n=8)	88% (n=7)	12% (n=1)

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
MAINSTREAMING

ELEMENTARY		YES	NO
101 Do you have friends with vision/hearing problems?			
**	Station (n=10)	100% (n=10)	0% (n=0)
	Itinerant (n=28)	29% (n=8)	71% (n=20)
10n Would you like to meet more kids with vision/hearing problems?			
	Station (n=9)	78% (n=7)	22% (n=2)
	Itinerant (n=19)	53% (n=10)	47% (n=9)

**Significant difference, $p \leq .05$

SECONDARY		YES	NO
19f Do you have any friends with vision/hearing problems?			
**	Station (n=19)	89% (n=17)	11% (n=2)
	Itinerant (n=37)	62% (n=23)	38% (n=14)
19h Would you like to meet others with vision/hearing problems?			
	Station (n=2)	100% (n=2)	0% (n=0)
	Itinerant (n=11)	55% (n=6)	45% (n=5)

**Significant difference, $p \leq .05$

RIM INTERVIEW, HEARING IMPAIRED RESPONSES
MAINSTREAMING

ELEMENTARY	A	B	C
10m Who do you like to play with most of the time?			
Station (n=9)	11% (n=1)	44% (n=4)	44% (n=4)
Itinerant (n=9)	22% (n=2)	56% (n=5)	22% (n=2)
A - Friends who do have vision/ hearing problems			
B - Friends who do not have vision/ hearing problems			
C - Both			

SECONDARY	A	B	C
19c Which kind of school would you like best?			
Station (n=16)	6% (n=1)	56% (n=9)	38% (n=6)
Itinerant (n=38)	0% (n=0)	29% (n=11)	71% (n=27)
A - A school with students who all have vision/hearing problems.			
B - A regular public school, but with special classes with other vision/hearing students.			
C - A regular public school and attending regular classes.			
19g With whom are you most comfortable?			
Station (n=17)	29% (n=5)	29% (n=5)	42% (n=7)
Itinerant (n=22)	14% (n=3)	23% (n=5)	64% (n=14)
A - Friends with vision/hearing problems			
B - Friends without vision/hearing problems			
C - Both			